

MITIGATED NEGATIVE DECLARATION



DISPOSAL SITES for Storm Damage Repair HIGHWAY 1 near Big Sur

SLO-1-71.3/74.3

MON-1-0.0/72.3

0C9401

THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

December 2000



INITIAL STUDY

Disposal Sites for Storm Damage Repair

Highway 1 near Big Sur

This project proposes to designate disposal sites for soil and debris generated by naturally occurring events, such as landslides, allowing for the continued safe operation and maintenance of Highway 1 in the coastal area near Big Sur.

From San Carpoforo Creek Bridge in San Luis Obispo County (SLO-1-71.4) to the Carmel River Bridge (MON-1-72.3) in Monterey County

State of California
Department of Transportation

Pursuant to:
California Environmental Quality Act of 1970

Aileen K. Loe
Aileen K. Loe
District 5
California Department of Transportation

12/1/99
Date

MITIGATED NEGATIVE DECLARATION

State of California
Department of Transportation

SCH No. 1999121074
05-SLO-71.3/74.3
05-MON-1-0.0/72.3

Pursuant to: Division 13, Public Resources Code

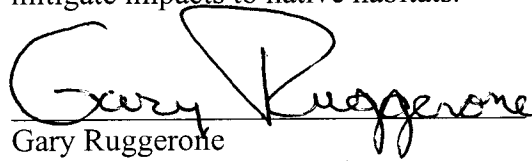
Description:

The proposed project is to designate disposal sites for soil and debris generated by naturally occurring events, such as landslides, allowing for the continued safe operation and maintenance of Highway 1 in the coastal area near Big Sur.

Determination:

An Initial Study has been prepared by California Department of Transportation (Caltrans). On the basis of this study, it is determined that the proposed action will not have a significant effect on the environment.

The proposed action includes measures to avoid impacts to sensitive species and its habitat, to minimize impacts from erosion and sedimentation of waterways and provides revegetation to mitigate impacts to native habitats.



Gary Ruggerone
Senior Environmental Planner

12/6/00
Date

TABLE OF CONTENTS

I. PURPOSE AND NEED	1
A. PROJECT PURPOSE	1
B. NEED	1
C. PROJECT LOCATION	1
D. EARLY DEVELOPMENT OF ROUTE 1	2
E. RECENT STORM EVENTS	2
F. MAINTAINING MOBILITY	6
G. CHALLENGES RESPONDING TO STORM DAMAGE EVENTS	6
1. Material disposal	6
2. Time to Opening	9
3. Complexity of Natural and Regulatory Environment	9
4. Declared Emergency	11
H. RELATIONSHIP TO THE COAST HIGHWAY MANAGEMENT PLAN (CHMP)	11
I. PLAN OF ACTION	12
II. DESCRIPTION OF PROPOSED PROJECT	13
A. RECOMMENDED DISPOSAL SITES	13
1. Project Description	13
2. Objectives	13
3. Limitations	13
4. Site Evaluations	13
5. Public Review	13
6. Site Recommendations	14
B. SITES CONSIDERED BUT WITHDRAWN	16
C. ALTERNATIVES STILL UNDER CONSIDERATION	16
1. Alternative Sites	19
2. Ocean Disposal	19
3. Existing Landfills/Approved developments	19
4. No Project Alternative	19
D. SITE SELECTION AND USE	19
1. Site Preparation	20
2. Selection and Use	20
E. FUNDING	22
F. ENVIRONMENTAL REVIEW AND COMPLIANCE	22
III. TIMELINE & CONTINGENCIES	23
A. SEASONAL TIMING	23
B. CONTINGENCIES: INTERIM PROCEDURES PRIOR TO PROJECT APPROVAL	23
IV. AFFECTED ENVIRONMENT	24
A. PHYSICAL	24
1. Topography	24
2. Climate	24
3. Geology	24
4. Air Quality	25
5. Hazardous Materials	26

6. Hydrology and Water Quality	26
7. Noise.....	26
B. BIOLOGICAL	26
1. Sensitive Species	26
2. Project Area Habitat Descriptions.....	27
C. SOCIAL & ECONOMIC	31
1. Cultural & Historic.....	31
2. Visual & Aesthetics.....	32
3. Adjacent Land Uses	33
4. Transportation/Traffic	34
5. Public Services	34
V. ENVIRONMENTAL EVALUATION CHECKLIST	35
A. TECHNICAL STUDIES	35
B. SIGNIFICANCE CHECKLIST	35
VI. DISCUSSION OF ENVIRONMENTAL EVALUATION.....	47
A. PHYSICAL.....	47
1. Air Quality.....	47
2. Geology and Soils	48
3. Hazards and Hazardous Materials.....	49
4. Hydrology and Water Quality	51
5. Mineral Resources.....	53
6. Noise.....	53
B. BIOLOGICAL.....	54
1. Biological Resources.....	54
C. SOCIAL AND ECONOMIC.....	62
1. Aesthetics	62
2. Agricultural Resources.....	64
3. Cultural Resources	65
4. Land Use and Planning	66
5. Population and Housing	66
6. Public Services	66
7. Recreation.....	67
8. Transportation/Traffic	68
9. Utilities and Service Systems.....	69
D. MANDATORY FINDINGS OF SIGNIFICANCE.....	69
VII. MITIGATION SUMMARY, MONITORING, AND REPORTING PLAN.....	71
VIII. PERMITS REQUIRED	75
A. PERMITS & APPROVALS REQUIRED--TRADITIONAL	75
B. STREAMLINING UNDER THE COAST HIGHWAY MANAGEMENT PLAN	75
IX. LIST OF PREPARERS.....	76
X. RESPONSES TO COMMENTS	78
A. INTRODUCTION	78

B.	INDEX TO RESPONSES BY COMMENT AUTHOR.....	78
C.	RESPONSES TO COMMENTS.....	80
APPENDIX A: COMMENT LETTERS RECEIVED.....		116

LIST OF TABLES

TABLE 1: PRELIMINARY LIST OF ROCKFALL LOCATIONS	3
TABLE 2: PRELIMINARY LIST OF SLOPE FAILURES.....	4
TABLE 3: 1998 & 2000 STORM DAMAGE INVENTORY	7
TABLE 4: POTENTIAL MATERIAL DISPOSAL SITES	17
TABLE 5: PROJECT IMPACTS BY LOCATION AND HABITAT TYPE	56

LIST OF CHARTS

Chart 1: Sample Landslide Repair: Factors Influencing Time to Opening.....	10
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LIST OF FIGURES*

Figure 1: Project Location
Figure 2: Disposal Site Summary Map
Figure 3: Vicinity Map: Willow Springs/Tree Bones
Figure 4: Willow Springs disposal site (aerial view)
Figure 5: Willow Springs disposal site (ground view)
Figure 6: Tree Bones disposal site (aerial view)
Figure 7: Tree Bones disposal site (ground view)
Figure 8: Vicinity Map: 1983 Extension
Figure 9: 1983 Extension disposal site (aerial view)
Figure 10: 1983 Extension disposal site (ground view)
Figure 11: Vicinity Map: Gurries
Figure 12: Gurries disposal site (aerial view)
Figure 13: Gurries disposal site (ground view)
Figure 14: Vicinity Map: Garrapata Sites #1-6
Figure 15: Garrapata #1 disposal site (aerial view)
Figure 16: Garrapata #1 disposal site (ground view)
Figure 17: Garrapata #3 disposal site (aerial view)
Figure 18: Garrapata #3 disposal site (ground view)
Figure 19: Garrapata #6 disposal site (aerial view)
Figure 20: Garrapata #6 disposal site (ground view)
Figure 21: Visual Simulation of Garrapata #1

* Disposal limits depicted on Figures 3-20 are strictly conceptual; Figure 21 is a simulated view from the road.

I. Purpose and Need

A. Project Purpose

This project proposes to designate and approve permanent disposal sites for soil and debris in order to respond to naturally occurring events, such as landslides, allowing for the continued safe operation and maintenance of Highway 1 in the coastal area near Big Sur.

B. Need

Highway One along the Big Sur coast in Monterey County is under continuous change. The changes are both physical and social in nature. The physical change is the ongoing process of natural erosion moving the coastal landmass toward the ocean. This physical change is expected and inevitable although unpredictable. Social changes have brought greater levels of commerce and tourism to the area, increasing the demands on the transportation facility. Social changes have also brought new and changing regulations. The dynamics of the social and physical environment together influence our strategies and abilities to respond to events that disrupt the transportation flow.

The challenges of maintaining this coastal route demand strategies for effective response to events that damage the road unpredictably and for carrying out effective operations with programmed construction projects and major maintenance repairs. Communities, businesses and tourists all depend on the roadway as their primary access. Private landowners, multiple State Parks, a National Forest and a National Marine Sanctuary are all neighbors of the highway and are also impacted by the physical changes and the ability of road crews to respond.

A perpetual and immediate need is for options on what to do with excess soil, rock and organic debris resulting from incidents of rockfall, landslides and flooding. It is important to have places available to accept material when the need arises. Often the most feasible option to manage the excess material is to place it in temporary and permanent disposal sites. Having pre-approved sites will be an effective tool in management and necessary for efficient reaction to unpredictable events.

There is also an ambitious effort underway to address the myriad of issues associated with storm damage and long-term management of the corridor. This effort is known as the Coast Highway Management Plan (CHMP). The relationship of the CHMP to this project (locate and approve disposal sites) is described later in this report (Section H.).

C. Project Location

The limits of this Initial Study and the CHMP are San Carpoforo Creek (SLO-1-71.30) to the Carmel River (Mon-1-72.3). These limits are effectively the boundaries that define this section of coastline where the mountains literally meet the sea.

The geophysical character of the Big Sur coast between the Carmel River and San Carpoforo Creek (Figure 1) is largely what makes this area so dramatic. Route 1 through the project limits

is best described by major geographic features, as it is bordered on the east by the steep mountains of the Santa Lucia Range, the west by the Pacific Ocean, the north by the Carmel River and the south by San Carpoforo Creek. Most significantly, though, is the fact that the area roughly coincides with the western edge of the North American continent. The instability we see today is consistent with the large-scale movements that have been occurring in this part of North America for millions of years. The activity can be traced to the relationship of the Pacific and North American tectonic plates.

Indications of instability include slope failures, landslides, rockfall and surface erosion. There are many locations along the coast where instability is apparent (Table 1: Preliminary List of Rockfall Locations & Table 2: Preliminary List of Slope Failures). However, neither the magnitude nor the timing of failures can be anticipated with any accuracy as they do not occur at a linear rate or even in a predictable pattern.

D. Early development of Route 1

Modern construction to accommodate automobile traffic on Route 1 along the rugged Big Sur coast was initiated in 1922 and took 15 years to complete. The impetus for the monumental undertaking came from Dr. John Roberts, a medical doctor practicing on the Monterey Peninsula. His primary reason for improving the road was public health and safety, after he experienced a rough ride in a horse-drawn wagon to treat victims of a tragic shipwreck off Point Sur in 1894. Opening the scenic coastline for tourist travel was a secondary but important consideration. The opening ceremony in 1937 featured California Governor Frank Merriam who, with the help of a bulldozer, symbolically pushed a large boulder off the highway. This gesture, ironically or intentionally, continues today as a theme for maintaining travel on this route.

While small landslides can affect the highway at any time of year, the greatest changes happen during the rainy season. The biggest events usually coincide with "El Nino" years, which are marked by above-average rainfall patterns, such as occurred in 1983 and 1998. Probably the largest and most infamous of all the landslides is the McWay landslide of 1983 near Julia Pfeiffer Burns State Park; approximately 3,750,000 cubic yards of material was moved, much of it deposited in the ocean immediately below the slide. The landslide repair at this location sought to completely remove the slide mass, which was extensive. This event and the subsequent repair severed the travel link approximately south of Big Sur for 13 months. While contemporary methods of repair may be less aggressive, they can still result in removal of large quantities of material and require complete or partial road closures.

E. Recent Storm Events

Meteorological factors (wind and rain) are the dominant influence on how slopes hold up. When the El Nino storms of 1998 brought record amounts of rainfall, the damage sustained by the highway was unprecedented. There were nearly 40 damaged locations requiring more equipment and resources than the assigned maintenance crews could provide. The locations

Table 1: Preliminary List of Rockfall Locations

County	Post Mile Location	Location Reference	Type of failure	Comments
MON	1.6		Landside/ Rockfall	
MON	8.7		Landside/ Rockfall	Active Landside/Rockfall
MON	20.2		Rockfall	
MON	20.6		Rockfall	
MON	21.0/21.7	Rainrocks	Rockslide, Rockfall, Erosion	Twisted Wire Drapery placed for Rockfall, Completed 6/99
MON	21.9/22.1	Big Slide Area	Rockslide and rockfall	Active Erosion at Edge of Pavement, Headscarp of Landside
MON	24.95		Rockfall	Location Scaled by Caltrans in July 1999
MON	27.9		Rockfall	aka PM 27.6 location in 3-1987
MON	28.3	Cow Cliffs	Rockslide and Rockfall	1999-2000 Minor A Project to Place Rock Net
MON	29.4	Wing Gulch	Rockside/ Landslide	1998 Storm Damage Location, Landslide Above Cut Regraded
MON	36.15	J.P. Burns Slide	Rockfall	Maintenance reports cut slope south of slide 5-99
MON	37	Vista Point	Rockfall	Maintenance report 5-99
MON	38.0-38.3	Vortex	Rockfall	Maintenance report 5-99
MON	39.1		Rockfall	
MON	40.9	Old Faithful	Rockfall	Minor B Proposed to Place Drapery and Rock Net
MON	41.0/41.2	Margaret Owens	Rockfall	Maintenance report 5-99
MON	41.8		Rockfall	
MON	41.95		Rockfall	
MON	45.01		Rockfall	Maintenance report 5-99
MON	49.15	Captain Cooper Landslide	Rockfall	Maintenance report 5-99, boulder fall in 98 (3-83 failure)
MON	57.7	South 40	Rockfall	Maintenance report 5-99
MON	57.9	Hurricane Point	Rockfall	98 slope excavation with 99 modification, catchment and berm collecting gravel sized rocks
MON	59.8		Rockfall	Maintenance report 5-99, "continuous material and rockfall"

Table 2: Preliminary List of Slope Failures

				1998-99 conditions				
Co.	P.M.	Location Reference	Type of failure	Below Road	Road	Cut Slope	Activity	Comments
SLO	71.4		Landslide	X	X		Low	Arcuate cracks in roadway
SLO	71.7		Landslide	X	X		Low	Arcuate cracks in roadway
SLO	73.00	Ragged Point	Embankment erosion	X	X		Low	SHOPP project to construct viaduct to realign and protect the roadway
SLO	73.35		Landslide	X	X		Low	Sag, No-Patches, 0.2 foot scarp in roadway, not patched as of 9-99
SLO	73.90		Landslide	X	X		High	Failure so. of reconstruction limit as arcuate cracks in road, arcuate cracks in shlder for repair except at patched N. end.
MON	1.50		Landslide	X	X		High	Patched, 100' Long, Guardrail removed, Cracks in Road, Project Proposed 8-99, PGR in progress
MON	1.60		Landslide			X	Medium	Landslide in slope above roadway
MON	2.10		Landslide	X	X		High	Patched, Cracked, Sag, Full Width Embankment with Upstream Culvert
MON	2.85	C44-100 Cattle UC	Landslide	X	X		Very Low	Cracking, Slight Warp
MON	3.75	Soda Springs	Landslide	X	X		Very Low	Reflective Cracking
MON	4.60		Landslide	X	X		Very High	40 meters Long @ Hinge, 98 Reconstruction, Heavy Cracking Southbound Only, Landslide @ Crib Wall
MON	5.10		Landslide	X	X		High	Southbound Shoulder and Lane, 50 meters Long, '98 Reconstruction, '99 patch; 10 cm. Open cracks in shoulder
MON	5.20		Landslide	X	X		Low	Arcuate cracking in southbound lane
MON	6.70	Gray Slip	Landslide	X	X	X	Very High	Roadway-Very Light Cracking, Extensional Features in Disposal Area Below Roadway
MON	7.60	Alder Creek	Shore erosion	X			Low	Rip Rap and Gabions placed in surf zone in the 1980's
MON	8.30	Duck Pond	Landslide	X	X	X	High	Roadway-No Distress
MON	8.70		Landslide/Rockfall			X	Very High	Active Landslide/Rockfall
MON	10.10	Gorda	Erosion	X			Medium	
MON	10.2/10.3	Willow Springs	Landslides	X	X	X	Low	Sag in Roadway, No Cracks
MON	11.80	Willow Creek	Landslide	X	X	X	Very High	Patched, Head Scarp in Roadway
MON	13.40		Landslide	X	X		Very Low	Heavy Patch, Light Cracking, 3 Meter High Fill Placed on Fill Deposits, Possible Spread due to Saturation
MON	17.75	Wild Cattle Creek	Landslide	X	X		Very Low	Trace of Cracks in Road, Need to Grade East-Side to Drain
MON	21.50	Limekiln Point North	Landslide	X	X		Medium	Heavy Erosion of Disposal Material, Moderate Cracking in Road, Gabions Placed by Construction in 1998
MON	21.70	Big Slide	Landslide	X	X	X	Medium	Moderate Cracking / Rockfall at North End
MON	21.9/22.1	Below Monastery	Landslide & rockfall	X		X	High	Active Erosion @ Edge of Pavement, Headscarp of Landslide, project proposed 9-99
MON	22.6/22.8	Dani Creek	Landslide	X	X		Very High	Landslide Complex, Heavy Patching and Cracking
MON	23.20	Grandpa's Elbow	Landslide	X	X	X	High	Cracks in many locations, Rockfalls at south end (k-rail) Erosion and Water Carrying Mud onto Road addressed with 99 project
MON	24.90		Landslide	X	X		Medium	Light Cracking, Large Slide, scarps cross roadway, patched 9-99
MON	25.00		Landslide	X			Medium	Extends to Ocean;1998 Realigned Away From Outer Edge of Slide

Table 2 – Continued				1998-99 conditions				
Co.	P.M.	Location Reference	Type of failure	Below Road	Road	Cut Slope	Activity	Comments
MON	26.0/26.3	North Vicente Creek	Landslide	X	X	X	High	Heavy Patch, Cracking
MON	26.70		Landslide	X	X		Low	Light Cracking
MON	26.80		Landslide			X	Low	Mud and Rocks
MON	27.1/27.3		Landslide	X	X	X	Medium	Sag, Cracks, Very Large Landslide
MON	27.40		Landslide	X	X	X	Medium	Major Sag, High Surf
MON	27.60		Landslide	X	X		Medium	Major Sag, Light Cracking, 0.5 mi south of Big Creek, 8 foot drop-off noted in 7-14-87, photographs in file
MON	29.40	Wing Gulch	Landslide			X	Very Low	1998 Storm Damage Location, Landslide Above Cut Regraded, Monitor for Future Activity
MON	30.20	Rancho Barranca	Erosion	X	X		Med	Erosion
MON	35.00		Landslide	X	X		Low	Moderate Cracking in AC
MON	35.60		Landslide	X	X		Low	Moderate Cracking in AC
MON	36.30		Erosion	X			Medium	Erosion of McWay Slide Debris, J. P. Burns Viaduct Constructed in 1997
MON	36.40		Erosion	X	X		Medium	Erosion of Slope, Road Patched, '98 Storm Damage Proj. - Retaining Wall
MON	38.95		Landslide	X	X		High	Small Slide, Patched, Guardrail Low, Slope Eroded, South Of Masonry Wall
MON	40.80		Landslide	X	X		Very Low	Old Cracks in Road in Front of Coast Gallery
MON	42.90		Landslide	X	X		Low	Moderate Cracking
MON	44.40		Erosion	X			Low	Erosion of Landslide Headscarp, 1999-2000 Minor A to Construct Retaining Wall
MON	44.81	Crescent	Landslide	X	X		Very High	Southern Edge of Landslide at PM 44.9
MON	44.90	Post Ranch	Landslide	X	X	X	Very High	Complex, major patches, cracking
MON	54.93		Erosion			X	High	Marine terrace deposits over sandstone, slope is approx. 25 feet high
MON	55.01		Erosion/Landslide			X	High	Landslide in marine terrace deposits, slope is approx. 40 feet high
MON	55.30		Erosion	X			Medium	Headscarp formed by erosion of box culvert discharge within 3 feet of EP
MON	55.90	Little Sur River	Landslides	X	X		Medium	Patched/Cracked
MON	56.00		Landslide			X	Low	
MON	57.33	Straight Down	Erosion	X			Very High	Erosion within 5 foot of shoulder, wind blowing back culvert discharge is undercutting the shoulder
MON	57.44		Erosion/Landslide	X			High	Erosion 5 to 7 feet from shoulder for 120 foot distance, roadway prev. realigned into cut (crib wall fail?), water at base of headscarp
MON	57.9/58.3	Hurricane Point	Erosion & Landslide	X	X	X	Very High	Maintenance reports cracking in shoulder, erosion of slope below roadway, slope above road failed in 98 and 99
MON	58.55	Bullpen	Erosion	X			High	Erosion of 98 reconstructed embankment due to surface flow (and ground water?), Minor B suggested 9-17-99
MON	59.59	No. of Bixby Cr. Br.	Landslide	X			Medium	Within 5 feet of EP, old debris flow failure, small, maintenance fills periodically
MON	59.70		Erosion	X			High	70 feet long, erosion up to guardrail but posts not exposed, no roadway shoulder, in marine terrace deposits
MON	62.16	Sea Meadow	Landslide	X	X		Very Low	Light cracking in southbound shoulder at site of reconstructed eroded embankment over culvert
MON	68.30	Yankee Pt Drive	Erosion	X			Very Low	Reconstructed in 1997, monitor for performance and erosion

included 18 plugged or failed culverts, six slipouts and six landslides¹, four of which involved removal of more than 100,000 cubic yards each of landslide material. The transportation link between Ragged Point and the Carmel Highlands was broken for about 3-1/2 months that year, allowing only intermittent passage of local traffic through work zones. The final construction cost for the major repairs that year exceeded \$29,000,000. (Table 3: 1998 & 2000 Storm Damage Inventory)

Among the greatest factors contributing to the high cost of repairs was the lack of nearby and available disposal sites. Use of several sites on private property within a few miles of the various landslides were negotiated during the crisis, but large quantities of material were also transported long distances. Over 1,000,000 cubic yards of material was transported. (See Section G. below.)

After a relatively mild winter in 1999 with little damage on the coast, the winter of 2000 was characterized by enough storm activity to trigger slipouts, plugged culverts, and landslides at ten locations along the Big Sur Coast. Although the damage was not as extensive as in 1998, the transportation link was again cut off between Ragged Point and Carmel for approximately 3 months except for intermittent openings through construction zones.

F. Maintaining mobility

In light of various natural influences and potentially high costs for maintenance, the California Department of Transportation (Caltrans) has the responsibility for maintaining a safe and efficient corridor. The route provides essential access to homes, communities, businesses, recreation areas and public resources, as well as essential public service and emergency access, such as mail delivery, law enforcement, fire, and ambulance response. While making essential repairs, it is also important to minimize disruptions. Because the route is such a vital link, there is little tolerance for delays or closures. Most important, however, is the accurate and timely communication of delays and closures.

G. Challenges responding to Storm Damage events

1. Material disposal

Given that few sites are known locally for accepting large quantities of material, and most conditions do not allow simple removal on site (such as pushing the material off and away from the roadbed), nearly every slide repair results in transporting material. In addition to environmental impacts, hauling costs increase with distance and time and do not include the damage to the pavement, which deteriorates under the load of heavy trucks. Disruptions to traffic are also magnified by the many trips of trucks carrying 10-cubic yards at a time.

One of the highest costs for the 1998 storm damage repair was incurred by hauling landslide material. In total, over 1,000,000 cubic yards of material was transported to various disposal sites. The longest haul occurred with the repair at Hurricane Point. Some of the material was hauled to a site near Carmel, a 38-mile round trip which took about 2 hours. Carrying only 10

¹ For purposes of this report, a slipout is generally characterized as a small rotational slide or earth flow where less than 5,000 cubic yards of material has moved; a landslide as a mass movement of 5,000 cubic yards or more of earth.

Table 3: 1998 & 2000 Storm Damage Inventory

1998 Storm Damage									
PM (MON-)	EA	RE	Type Of Failure	Project Description	Actual Cost	Time to Construct	Disposal Sites Used	Estimated Quantity Disposed (CY)	Quantity Imported (CY)
0.1/0.3	477803	CH	Plugged Culvert-Washout	Reconstruct roadway.	\$95,000	2 months	N/A	N/A	N/A
0.8	471403	CH	Slipout	Repair crib wall_ reconstruct roadway.	\$850,000	2 months	N/A	N/A	N/A
1.3/1.5	472503	CH	Slipout	Reconstruct embankment.	\$100,000	1 month	N/A	N/A	N/A
3.6/3.8	477903	CH	Slipout	Reconstruct roadway.	\$390,000	2 months	N/A	N/A	N/A
4/4.2	472903	CH	Slipout	Reconstruct SB lanes.	\$100,000	2 months	N/A	N/A	N/A
5.2	480903	CH	Slipout	Reconstruct road.	\$300,000	1 month	N/A	N/A	N/A
8.3/8.5	471503	CH	Massive Slide	Reconstruct roadway. (Duck Pond)	\$6,000,022	8 months	Mon-1-4.1, Grey Slip (Mon-1-6.8), Mon-1-7.7	450,000	N/A
12	477003	EM	Massive Slide	Remove slide_ reconstruct road. (Willow Creek)	\$929,016	3 months	On Site	50,000	N/A
14.9	479103	EM		Place RSP, backfill against abutment. (Prewitt Creek)	\$107,000	1 month	N/A	N/A	RSP only
17.6/17.8	471803	EM	Plugged Culvert-Washout	Reconstruct roadway. (Wild Cattle)	\$1,050,000	2 months	On Site	20,000	RSP only
21.5/21.7	472603	BR	Massive Slide	Reconstruct roadway. (Big Slide)	\$1,285,000	3 months	Rain Rocks/ On Site	60,000	N/A
23.1/23.3	472703	BR	Massive Slide	Reconstruct roadway. (Grandpa's Elbow)	\$1,996,000	6 months	Mon-1-26.0	35,000	N/A
26/26.2	481903	GK		Reconstruct road.	\$439,999	1 month	N/A	N/A	N/A
29.3	482103	GK	Slide	Reconstruct road. (Wing Gulch)	\$317,436	1 month	Mon-1-26.0	10,000	N/A
51.2/59.5	480103	JT	Several wash outs	Fill washouts_construct detour. (Old Coast Rd)	\$430,000	6 months	N/A	N/A	N/A
57.9/58.1	478003	JT	Massive Slide	Reconstruct road_ construct wall. (Hurricane Point)	\$6,500,000	11 months	El Sur Ranch: Mon-1-52.7, 53.3, & 56.0/ Bull Pen: Mon-1-58.6/ Allan Funt Ranch: Mon-1-58.8, 58.1/Old Coast Road/Double Gulch: Mon-1-66.8/Fish Ranch: Mon-1-71.8/ Rancho Canada Golf Course	400,000	N/A
58.5/58.7	472003	GK	Plugged culvert	Reconstruct roadway. (Bull Pen)	\$1,344,876	5 months	On Site	10,000	10,000
59.3	480203	GK	Plugged culvert	Construct crib wall_ reconstruct slope.	\$61,800	2 months	N/A	N/A	N/A
59.5/68	486403	SB	Damaged pavement	Place AC Overlay.	\$938,211	3 months	N/A	N/A	N/A
59.7/59.9	471903	GK	Plugged culvert	Reconstruct SB lanes.	\$214,111	3 months	N/A	N/A	10,000
62.1/62.3	472103	GK	Plugged culvert	Reconstruct embankment.	\$132,121	2 months	N/A	N/A	N/A
62.5	482903	GK	Failed culvert (sink hole)	Repair sinkhole.	\$26,979	1 month	N/A	N/A	N/A

Table 3 - Continued (1998 Storm Damage)

PM (MON-)	EA	RE	Type Of Failure	Project Description	Actual Cost	Time to Construct	Disposal Sites Used	Estimated Quantity Disposed (CY)	Quantity Imported (CY)
62.7	480303	GK	Plugged culvert	Reconstruct embankment.	\$112,870	1 month	N/A	N/A	N/A
63.3/63.6	472203	GK	Plugged culvert. Severe erosion in cut section.	Reconstruct roadway.	\$1,122,798	3 months	N/A	N/A	10,000
64	483903	GK	Plugged culvert	Reconstruct road and embankment.	\$106,941	1 month	N/A	N/A	N/A
64.5/64.7	472303	SB	Plugged culverts (2)	Reconstruct SB lanes. (Granite Canyon)	\$492,320	1.5 months	Allan Funt Ranch and PM's 64.8, 65.4, 65.9, 66.1	3000	5,000
64.8/65.0	472403	SB	Plugged culvert	Reconstruct roadway.	\$197,168	3 months	Allan Funt Ranch and PM's 64.8, 65.4, 65.9, 66.1	1000	1,000
66.2	484403	SB	Failed slope	Reconstruct embankment.	\$105,484	3 months	N/A	N/A	2,000
66.3	483303	SB	Plugged culvert	Reconstruct embankment.	\$492,520	4.5 months	Allan Funt Ranch and PM's 64.8, 65.4, 65.9, 66.1	5,000	10,000
66.8	470403	SB	Plugged culvert	Temporary culvert_ rebuild slope. (Double Gulch)	\$1,970,000	5 months	Allan Funt Ranch and PM's 64.8, 65.4, 65.9, 66.1	10,000	10,000
67.3/68.9	481703	SB	Plugged culverts (4)	Reconstruct road.	\$105,484	3 months	Allan Funt Ranch and PM's 64.8, 65.4, 65.9, 66.1	2,000	2,000
69.6	478303	SB	Plugged culvert	Reconstruct road and embankment.	\$393,936	4 months	Allan Funt Ranch and PM's 64.8, 65.4, 65.9, 66.1	5,000	1,000
71.2	473003	SB	Scour at bridge abutment	Protect bridge.	\$98,584	1 month	N/A	N/A	RSP only
1998 TOTAL:					\$28,805,676			1,061,000 cubic yards	61,000 cub.yard

2000 Storm Damage

PM (MON-)	EA	RE	Type Of Failure	Project Description	Actual Cost	Time to Construct	Disposal Sites Used	Est. Quantity Disposed (CY)	Quantity Imported (CY)
0.7	0E5801	H/R	Slip Out	Stabilize Roadway	\$450,000	4 month	N/A	N/A	RSP only
1.5	0E5501	H/R	Slip Out	Emergency Opening	\$325,000	1 month	N/A	N/A	RSP only
3.5	0E8001	H/R	Slip Out	Stabilize Roadway	\$90,000	1 month	N/A	N/A	1,000
18.6	0E6101		Slip Out	Realign Roadway	\$375,000	1 month	Grey Slip	1,700	N/A
19.8/20.3	0E7501	H/K	Mudflows	Unplug/Replace Culverts	\$891,000	5 months	On Site	4,100	N/A
20.7	0E7801	CH	T-Wall Failure	Repair T-Wall	\$600,000	10 months	N/A	N/A	N/A
21.3	0E5701	CH	Landslide	Reconstruct Roadway	\$3,100,000	4 months	On-Site; Willow Creek (temp.) Grey Slip, Harlan's, Farr's	80,000	N/A
27.7	0E8301	CH	Landslide	Slide Removal	\$400,000	1 month	On Site	15,000	N/A
56.7	0E8401	JT	Plugged Culvert	Reconstruct Drainage System	\$111,000	1 month	N/A	N/A	N/A
57.2	0E2301	SB	Plugged Culvert	Reconstruct Drainage System	\$111,000	1 month	N/A	N/A	N/A
SLO-71.6	0E7901	H/R	Slope Failure	Repair Failed Slope	\$400,000	3 months	N/A	N/A	10,000
2000 TOTAL:					\$6,853,000			100,800 cub. Yards	11,000 cub. yards

cubic yards at a time, hauling the nearly 350,000 cubic yards was one of the most significant expenses in the \$6,500,000 project and contributed to delays in completing the work.

The description above shows the importance of considering hauling costs associated with landslide repair strategies. A typical landslide repair operation involves excavating and loading the material into trucks, transporting, then spreading and compacting it at the disposal site. Costs include hourly rates in addition to trucking rates, which increase with distance. For planning purposes, we consider that the costs for handling material can be as high as \$11/cubic yard of material plus another \$1/mile for each cubic yard transported (one-way).

For manageable and routine storm events, material disposal at approved sites will normally be the most effective strategy for maintaining the roadway. The proposed project seeks this strategy. For the magnitude of need generated by storms during an El Nino year (such as 1983 and 1993), more effort is required to define suitable disposal strategies (see Section H. Relationship to CHMP).

2. Time to Opening

Caltrans' primary consideration for decisions related to landslide repairs in the Big Sur area is the time it takes to restore traffic (also referred to as "time to opening" – See Chart 1). While cost is certainly a factor (as the highway is operated 100% with public funds), it is not usually the determining factor. The single most important factor influencing the time to opening is the handling of landslide material. The most expeditious response occurs if material can be handled once and handled on-site. Operations involving excavation and hauling off-site result in longer construction times and higher costs which increase exponentially with total volumes, the number of times material requires handling (e.g. hauling to a temporary holding area prior to transfer to long-term or "stable" storage) and haul distances.

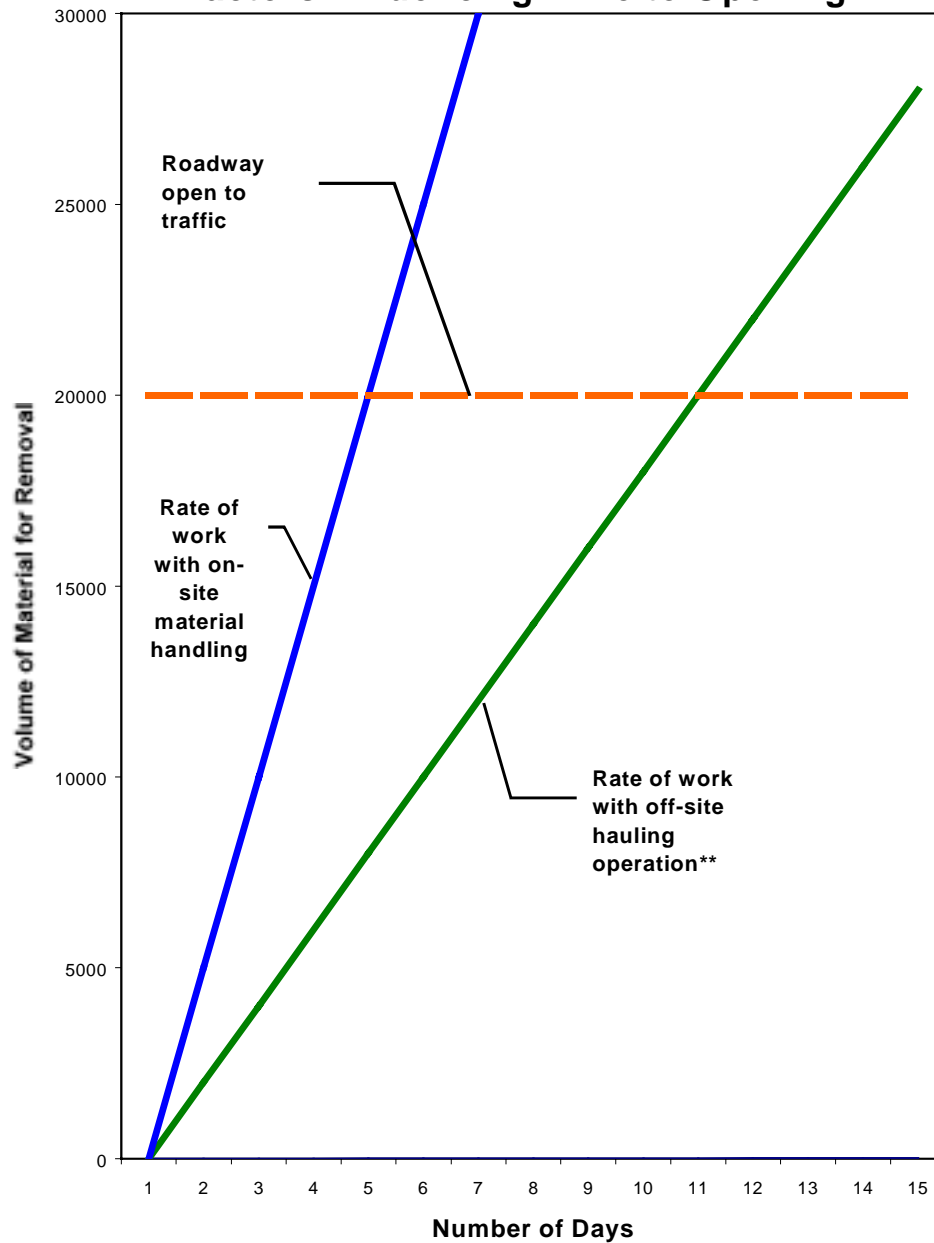
Depending on individual site circumstances, the impacts of handling material on-site will vary. For landslides occurring on slopes immediately above the shoreline, handling material on-site would equate to ocean disposal in that material would be mechanically moved down slope toward the shoreline.

Besides influencing time in construction, hauling material off-site (transporting to upland sites) has its own set of impacts associated with the burial of terrestrial habitats, as well as impacts to traffic, the roadway itself and air quality (associated with the hauling operation).

3. Complexity of Natural and Regulatory Environment

As with most projects, approvals are required for certain activities not considered "routine maintenance," or have the potential to have an adverse impact on the environment due to special circumstances. While many activities performed by Caltrans Maintenance crews are considered routine, landslide repairs have the potential to cause impacts to various sensitive resources found in the coastal environment. While Caltrans is unable to control impacts caused directly by landslides, there is discretion about where and how the material is consequently disposed. Approval for disposal sites comes from a variety of different agencies depending on the resource

**Chart 1: Sample Landslide Repair:
Factors Influencing Time to Opening**



Assumptions:

1. Rate of work w/ on-site handling & compact in place: 5,000 CY/Day
2. Rate of work with 2-way hauling operation: 2,000 CY/Day
3. Compaction at receiver site is rated for stability in place only (i.e. not suited as building site)

Variables:

1. 2-way versus 1-way haul
2. Availability of trucks
3. Site access (work and disposal site)

** Rate of haul shown is optimal and slows in correlation to variables

issues involved for the specific site. Up to eight different agencies may have jurisdiction over the resources that may be affected.

4. Declared Emergency

Under typical circumstances, agencies have variable (required) timeframes for taking action; compliance with some regulations can take six months or more under normal circumstances. If a particular event has been declared an emergency by the Governor or the Director of Caltrans (CA Gov't Code Section 14120), agencies have alternative procedures that can be used, however, timeframes still vary somewhat based on the agency's requirements. Most agencies have the ability to invoke emergency provisions to authorize work. In some cases, this authorization can be granted with a phone call (Coastal Development Permit), in other cases, written authorization is still required (Section 404-Clean Water Act).

Anytime work is required on property outside the state's highway right-of-way, permission from affected property owners is also needed. With a declared emergency and where repair is required immediately, the process is expedited accordingly; but since consequent disposal is a discretionary action, more formal procedures are generally required. Use of other public lands (such as State Parks or National Forest) also require agreements; some temporary use permits can be expedited (1-2 weeks), others require lengthy reviews to process (1-2 years), essentially making them unavailable for use on short notice.

The current planning activity (with the proposed project) aims to reduce the need for emergency permits under which disposal historically occurs.

H. Relationship to the Coast Highway Management Plan (CHMP)

The CHMP is a comprehensive planning effort intended to address many issues associated with storm damage, maintenance and long-term management of the corridor. A broad-based approach is being taken to involve communities, the public and facilitate interagency coordination. A primary objective is concurrence on issues ranging from day-to-day maintenance practices to long-range planning for enhancements within the highway corridor.

The CHMP is funded in part by a Scenic Byways grant from the Federal Highway Administration. The CHMP will serve to update and revise the existing corridor management plan prepared in 1996 for the route's All American Road designation, the highest given under the Scenic Byways program. In part, the CHMP will address the complex issues associated with storm damage response and repairs. This element is critical as consequences of these repairs are seen as threatening intrinsic qualities within the corridor. Intrinsic qualities are those features (scenic, natural, cultural or historic) most highly valued by travelers (residents and visitors alike) and which are central to the route's designation.

The CHMP will address the "big picture" of corridor management. In the context of disposal, for example, further exploration will continue on a programmatic level for routine use, and on solutions for greater magnitude (El Niño scale) events. One objective will be to develop a process for ongoing suggestions, alternatives analysis, impact evaluation and streamlining

processes for approvals. Addressing large scale events will include analysis of ocean disposal alternatives. The CHMP will be developed over a period of approximately two years².

By contrast, this Initial Study is focussed on the short-term and ever-present need to locate disposal sites in advance of a crisis arising from a storm event. This Initial Study also focuses on sites that are currently felt to be the least problematic that can be evaluated and approved in the shortest period of time.

I. Plan of Action

Although particular events and the location, composition and size of failures cannot be predicted with any accuracy, the occurrence of events is a certainty and thus the need for disposal sites. The key is having a response plan in place for disposal that can be implemented when the need arises. While this Initial Study strikes an important step in the direction toward pre-approved sites, there remains the likelihood that a need would arise prior to approvals being in place or that quantities of material would exceed the capacity of available pre-approved sites. (See Section III below).

² The final plan is targeted for completion in Fall 2001.

II. Description of Proposed Project

A. Recommended Disposal Sites

This revised Initial Study and Mitigated Negative Declaration identifies seven permanent disposal sites as the proposed project.

1. Project Description

The proposed project is to designate and approve permanent sites for material disposal of soil and debris in order to respond to naturally occurring events, such as landslides, when its removal is necessary for the safe operation and maintenance of Highway 1.

2. Objectives

The project intends to meet two primary objectives:

- a) **Geographic distribution:** Provide at least one site in each Maintenance area: Willow Springs, Big Sur, Monterey (Figure 2).
- b) **Multiple use:** Accommodate needs for both Construction and Maintenance :
 - **Construction:** large capacity (50,000 cubic yards or more) for activities such as landslide repair; used in stages or all at once (depending on event); types of equipment and construction techniques widely available.
 - **Maintenance:** variable capacity and available to accept smaller quantities of material from routine clean-ups from minor slides, culvert cleaning and chronic rockfall; used over extended periods of time, limited types of equipment and construction techniques available (e.g. little or no compaction).

3. Limitations

The proposed project assumes continuation of existing practices for temporary stockpile areas. In times of need, stockpiling may take place at suitable areas along the roadway (such as in existing turnouts) until transport to a permanent location can occur. Temporary stockpiling and maintenance actions to re-use material are not evaluated as part of this document.

4. Site Evaluations

Approximately 45 sites for disposal along the coast have been identified to date³. Property owners, members of the community and Caltrans and other public agency personnel proposed disposal sites (Table 4). Each of the sites was evaluated by a (Caltrans) multi-disciplinary team in the field. Criteria for evaluating each of the sites considered the following:

- Constructability: access to the site, proximity to chronic problem areas, disruption to traffic, steepness of slope
- Environmental Sensitivity: potential for rare or threatened species, cultural resources, waterways/riparian habitat, natural integrity (or intactness), visual sensitivity
- Complexity: approvals required from other agencies

5. Public Review

³ Nominations for disposal sites is an ongoing process. Suggestions for additional sites are always welcome!

The review period assigned by the State Clearinghouse extended from December 20, 1999 to January 18, 2000. Comment letters and e-mails, and their responses are included in Chapter X. Comments received were incorporated throughout the body of this document and in the site recommendations, below.

6. Site Recommendations

The first recommendation from the initial review of the 45 sites resulted in a "short list" of 20 sites for submitting to further study. In depth technical review was conducted in the field by a team of specialists (See List of Preparers- Section VIII). With these results, the PDT⁴ recommended carrying forward a smaller list of nine sites, which showed the most promise for availability in time for a future event. These nine sites were recommended in the December 1999 version of this document. As a result of additional information brought forth during public review as well as additional technical analysis, Garrapata #5 has been removed from consideration at this time. In addition, the Pt. Sur Naval Facility has been placed in the category of sites under consideration for longer-term future use (See Section C.). The current recommendation consists of the seven sites as follows (See also Figure 2 and Table 4):

WILLOW SPRINGS MAINTENANCE AREA

Willow Springs (P.M. 10.4)

Directly behind the Willow Springs Maintenance station, on the east side of the highway, this site is within the Los Padres National Forest. The site is large, slightly bowl-shaped to flat, with a capacity for approximately 20,000 cubic yards of material. A 4-meter wide gravel road provides access to the site at the rear of the Maintenance yard; the access road will need some improvements for disposal operations. The site is out of the Highway 1 viewshed and the terrain allows for easily containing material on site (i.e. steep fill slopes would not be created). (Figures 3, 4 & 5)

Proposed use: Available for Maintenance or Construction. No known long-term site plans for secondary use; few limitations on use⁵.

Tree Bones (P.M. 11.0)

Another site on USFS property, adjacent to a small private inholding, this site is also on the east side of the highway and is estimated to accommodate about 100,000 cubic yards of material. One notable feature at this site is a depression which contains water for part of the year. The proposed disposal activities have been modified to exclude the wetland areas at the bottom of the depression. An existing 4-meter wide gravel road, that would require upgrading for the proposed disposal activities, provides access to the site from Highway 1. This site is not visible from Highway 1. (Figures 3, 6 & 7)

Proposed use: Available for Maintenance or Construction. Site development plans proposed by USFS and adjacent property. Limitations on terms of use are likely.

⁴ The Project Development Team (PDT) is a multi-disciplinary team within Caltrans, including representatives from Maintenance, Construction, Environmental Planning, Geotechnical Engineering and Hydraulics.

⁵ See discussion of Environmental Evaluation for limitations or potential conditions of use for the various sites.

BIG SUR MAINTENANCE AREA

1983 Extension (P.M. 53.6)

This site consists of an eroded gully within a large marine terrace located west of State Route 1 on the El Sur Ranch, which is privately owned. The property owner seeks to restore the area to grazing land, consistent with the use of this portion of the property; this site is adjacent to a large area used for disposal in 1983. This site would accommodate approximately 50,000 cubic yards of material. An existing access road from Route 1 is predominantly overgrown with grasses and crosses a water-saturated area. Use of this site would require improvements to the access road to accommodate the disposal operation. The site is within the viewshed of Route 1, however, the nature of the work involves filling to the surrounding natural elevation of the marine terrace. (Figures 8, 9, & 10)

Proposed use: Available for Construction only. Accommodating disposal operations so as not to interfere with existing use of the land would require minimizing periodic disruption.

MONTEREY MAINTENANCE AREA

Gurries (P.M. 63.0)

A privately owned parcel on the east side of the highway, activity here would remain predominantly hidden from view. This site has several areas that could be utilized for different activities and accept over 100,000 cubic yards of material. One of the areas includes a large natural drainage area. Access is available on an existing single lane gravel road from Highway 1, although the property owner has requested a separate access road be constructed, which will be considered during the design and permitting phase and will be subject to CDP requirements (Figures 11, 12 & 13).

Proposed use: Available for Maintenance or Construction. Site may be available for long-term use for material separation and handling as well as permanent disposal (fill).

Garrapata #1, 3& 6 (P.M. 63.6/67.0)

These sites are all within Garrapata State Park on the west side of the highway and most are within the highway viewshed. Access to these sites is directly from Highway 1. Each of these sites was proposed by State Parks to repair areas with erosion damage, and to provide overall access improvements to and within the park. These sites would only be available for use as disposal sites after State Parks has acquired all required permits and approvals necessary to proceed (Figure 14).

Site #1 (P.M. 66.4): This site is an eroded drainage that would take approximately 1,300 cubic yards to restore (Figures 15 & 16).

Site #3 (P.M. 65.3): Also an eroded drainage, this site would take about 2,600 cubic yards of material (Figures 17 & 18).

Site #6 (P.M. 67.0): The site here is parallel to the highway and consists essentially of widening the highway embankment; the work includes removing the northern-most

turnout and combining and widening two smaller turnouts to the south, and improving the trail connections (Figures 19 & 20). This site would take approximately 7,800 cubic yards of material.

Proposed use: Available for Construction only, unless otherwise noted by site specific terms and conditions. Since the area is used for recreation, disturbances must be minimized (i.e. chronic disturbance associated with long-term use is not appropriate).

B. Sites Considered but Withdrawn

During initial review of the short-listed sites (Figure 4), some were found to contain sensitive resources. Considering the availability of other suitable sites, the following sites are withdrawn from consideration at this time:

Coffeeberry Flat (P.M. 16.8)

This site is located adjacent to Route 1 along a marine terrace and was expected to accept as much as 60,000 cubic yards. This site was favored by Maintenance for its proximity to chronic problem areas and easy access from Highway 1. During field reconnaissance surveys for archaeological resources, it was determined that the area is likely within an intact archaeological site. Further investigation for characterizing the resource and determining potential impacts was determined not to be prudent for the current project considering the availability of alternative sites.

Garrapata #4 (P.M. 63.6)

This is a storm damage site that was repaired in 1998, but still has the potential to accept additional material. The site includes a perennial stream and wetland vegetation was found along the channel bottom. This site also has a population of seacliff buckwheat with an estimated 300 ± plants within the slopes of the drainage. Due to the presence of potential habitat for Smith's blue butterfly at this site, combined with the perennial stream and wetlands present, this site has been withdrawn from the list of recommended sites for the current project.

Garrapata #5 (P.M. 66.3)

The site received approximately 40,000 cubic yards of disposal material as fill in Spring/Summer 1999. The disposal fill was completed in Summer 1999, treated for erosion control, and the site will soon be re-vegetated.

C. Alternatives Still Under Consideration

There is a tremendous need for disposal capacity to respond to landslides and storm damage on the Big Sur Coast. Even with the proposed project, available storage capacity is extremely limited and falls far short of expected disposal needs in the coming years. Among the tasks for the CHMP is to determine an overall strategy to storm damage response and landslide repair. The strategy will likely include elements of the following alternatives:

Table 4: Potential Material Disposal Sites

Site Location			Existing/ Proposed	Estim. Cap. (CY)	Size (Acres)*	Owner	Regulatory Jurisdiction								Recom. By
Maint. Area	P.M./ Approx.	Location Name					Coast. Zone	USFS	DPR	ACOE	RWQ CB	State Lands	DFG	MB NMS	
Willow Springs	SLO-73.7	Little Flat	Proposed	20,000	N/A	Unk.	x							consult	CT Maint.
	0.1	County Line	Proposed	4,000	N/A	Unk.	x							consult	CT Maint.
	**2.5	Salmon Creek	Existing	10,000	0.8	USFS	x	x						consult	CT Maint.
	3.6	Soda Springs	Proposed	20,000	N/A	USFS	x	x		x	x		x	consult	CT Maint.
	4.3	South of Radio Pt	Proposed	60,000	N/A	Private	x	x						consult	CT Maint.
	4.6	Radio Pt 1&2	Proposed	10,000	N/A	R/W	x	x						consult	CT Maint.
	6.7	Grey Slip	Existing	30,000/yr	N/A	Unk.	x			consult	consult			consult	CT Const.
	**7.2	Villa Creek	Proposed	50,000	1.2	Unk.	x	x		consult	consult			consult	CT Maint.
	9.3	Lone Eucalypt.	Proposed	55,000	N/A	USFS	x	x						consult	USFS
	9.5	Eucalyptus	Proposed	30,000	N/A	USFS	x	x		x	x		x	consult	USFS
	9.98	Spruce Creek	Proposed	10,000	N/A	USFS	x	x		x	x		x	consult	USFS
	***10.4	Willow Springs	Proposed	20,000	1.9	USFS	x	x							USFS
	***11	Tree Bone	Proposed	100,000	5.7	USFS	x	x							USFS
	11.8	Willow Creek	Proposed	30,000	N/A	R/W	x							consult	CT Maint.
	**16.8	Coffeeberry Flat	Existing	60,000	3.4	R/W	x							consult	CT Maint.
	24.1	Harlan's Creek	Proposed	100,000	N/A	Private	x			x	x		x	consult	John Harlan
	25.0	Tres Pinos	Proposed	15,000	N/A	R/W	x							consult	CT Maint.
	25.0	Robinson's retreat	Proposed	40,000	N/A	Unk.	x							consult	CT Const.
	26.9	Packard Beach S	Proposed	5,000	N/A	Unk.	x							consult	CT Maint.
	27.7	Big Creek stage-S	Existing	3,000	N/A	Big Creek Res.	x							consult	CT Maint.
	28.5	Big Creek North	Proposed	35,000	N/A	Big Creek Res.	x			x	x			consult	John Harlan
	33.8	Buck Creek So.	Existing	5,000/yr	N/A	Private	x							consult	CT Maint.
Big Sur	38.3	Obie's Flat	Proposed	2,000	N/A	Private	x							consult	Ken Wright
	**40.9	Coast Gallery	Existing	1,000/yr	1.8	Unk.	x							consult	CT Maint.
	42.1	Fullers	Proposed	20,000	N/A	Unk.	x							consult	CT Maint.
	**51.2	Andrew Molera	Proposed	4,500	0.9	DPR	x		x					consult	State Parks
	**52.9	W. Morro Ditch	Proposed	20,000	2.1	Private	x			x	x		x	consult	El Sur Ranch
	52.9	E. Morro Ditch	Proposed	2,000	N/A	Private	x			x	x		x		El Sur Ranch
	53.3	Dairy Canyon	Existing	5,000	N/A	Private	x							consult	El Sur Ranch

Site Location			Existing/ Proposed	Estim. Cap. (CY)	Size (Acres)*	Owner	Regulatory Jurisdiction								Recom. By
Main Area	P.M./ Approx.	Location Name					Coast. Zone	USFS	DPR	ACOE	RWQ CB	State Lands	DFG	MB NMS	
Big Sur	53.6	Light house Ditch	Existing	2,000	N/A	Private	x			x	x		x	consult	El Sur Ranch
	***53.6	1983 Extension	Proposed	50,000	1.3	Private	x			x	x		x	consult	El Sur Ranch
	**53.8	Pt Sur Naval	Proposed	9,000	3.1	State Parks	x		x					consult	State Parks
	56.0	Little Sur River	Proposed	5,000	N/A	Private	x								El Sur Ranch
	56.0	Little Sur River	Existing	5,000	N/A	R/W	x								CT Maint.
	**56.7	Crooked Pipe	Existing	20,000	1.5	Private	x			x	x		x	consult	CT Mntc Design
	57.2	Hill re-build W	Proposed	750	N/A	Private	x							consult	Ken Wright
	57.2	Hill re-build E	Proposed	3,000	N/A	Unk.	x								Ken Wright
	57.3	Straight Down	Proposed	8,000/yr	N/A	Unk.	x			consult	consult			Consult	CT Mntc Design
	57.4	Straight Chute	Proposed	3,000	N/A	Unk.	x			consult	consult			consult	CT Mntc Design
	**61.7	Rocky Pt South	Proposed	8,000	1.7	Unk.	x							consult	CT Mntc Design
	**62.1	Rocky Pt North	Proposed	8,000	0.1	Unk.	x							consult	CT Mntc Design
Monterey	***62.97	Gurries	Proposed	100,000+	4.2	Private	x			x	x		x		Property Owner
	**63.6	Doud Ranch	Proposed	8,000	0.9	Private	x			x	x		x		CT Mntc Design
	63.6	Garrapata #4	Proposed	15,000	1.0	State Parks	x		x	x	x		x	consult	State Parks
	***65.3	Garrapata #3	Proposed	1,000	0.1	State Parks	x		x	x	x		x	consult	State Parks
	66.1	Garrapata #2	Existing	5,000	0.3	State Parks	x		x				x	consult	State Parks
	**66.3	Garrapata #5	Existing	5,000+	1.2	State Parks	x		x	x	x			consult	State Parks
	***66.4	Garrapata #1	Proposed	4,000	0.2	State Parks	x		x	x	x		x	consult	State Parks
	***67	Garrapata #6	Proposed	2,000	0.8	State Parks	x		x	x	x		x	consult	State Parks
Sites to be reviewed															
SLO-53.2	Winsor	Existing				Private	x								CT Const.
SLO-72.2	Ragged Pt	Proposed				USFS	x	x							USFS
MON-25.8	Vicente Creek					Unk.									Citizen
MON-60+	Scully	Proposed				Private									Property owner
Table Notes:															
***Recommended Disposal Sites															
** Other short-listed sites															
* Acreage figures are estimates only- generated from ArcView layouts (see aerial photos: figures 4-21)															
Legend: PM--postmile location on highway; CY--cubic yards; USFS--U.S. Forest Service; DPR--Department of Parks and Recreation; ACOE--Army Corps of Engineers; RWQCB--Regional Water Quality Control Board; DFG--Department of Fish and Game; MBNMS--Monterey Bay National Marine Sanctuary; R/W--Caltrans Right of Way															

1. Alternative Sites

To varying degrees, the remaining sites listed on Table 4 may be considered viable alternatives. Primarily the short-list of 20 sites include those believed to meet most of the requirements for Maintenance and Construction and were the least complicated from the standpoint of resource sensitivity and subsequent permitting requirements. Since every need can not be anticipated, it is important to keep in mind that these or other new sites remain viable for future consideration.

One site previously considered is the former U. S. Naval Facility (P.M. 53.8) near the lighthouse at Pt. Sur, now owned by the CA Department of Parks and Recreation (DPR). DPR plans for re-use and redevelopment of the property remains under discussion. The original suggestion to build earthen berms as a shield for existing buildings is among the issues being considered. Since DPR will be the lead agency for any projects at the Pt. Sur Naval Facility, Caltrans can agree to participate (by providing material) to the extent that such a proposal has undergone full review and approval by DPR.

2. Ocean Disposal

Disposing of material in the ocean would require permits from the US Army Corps of Engineers, the Monterey Bay National Marine Sanctuary, the California Coastal Commission, and the Regional Water Quality Control Board.

3. Existing Landfills/Approved developments

Transporting material to existing landfills or large approved developments (those with grading plans allowing import of fill) may provide options, however, the associated costs and uncertain capacity make them less desirable. Furthermore, the nearest commercial sites are in on the Monterey Peninsula, or at San Simeon, in San Luis Obispo County. Both of these sites are at considerable distances from coastal landslides in the Big Sur area. Since hauling costs increase with distance from the source, these sites would be expensive and cause considerable traffic disruption, as well as greater air quality impacts from increased truck activity.

4. No Project Alternative

The no project alternative would continue the status quo. Disposal sites would be sought only in times of need. The required coordination of multiple parties (agencies, property owners, construction contractors and Caltrans) would be conducted in a crisis mode. The demand and expectations on public agency representatives is immediate and intense; providing timely and accurate information about traffic delays and closures (related to repair work) would remain complicated. This level of disruption and impacts to those depending on the road can be minimized through better planning. Since it is undesirable to operate in a crisis mode for a type of work that can be anticipated (i.e. disposal), the no project alternative is not acceptable.

D. Site Selection and Use

Approval of this project would allow for the designated sites to be used for disposal on demand. Sites would be developed in accordance with a conceptual grading plan (site specific) and would include measures to avoid, minimize and/or mitigate environmental impacts.

1. Site Preparation

At a minimum, use of the sites for disposal will require vegetation removal and clearing. Other sites may involve more extensive work such as establishing an access road or extending drainage facilities. Individual site preparation would commence only as needed; approval of the project will not lead to immediate site preparation prior to an identified and specific need. Extent of site preparation, similarly, would be limited to the current demand and according to the plan for each site (in other words, the construction would be staged such that the entire site would not be disturbed if only a fraction of the site was needed).

2. Selection and Use

At the time of an event, the responsible party (RP) in Maintenance (Area Supervisor) or Construction (Senior Construction Engineer) will make a selection from the approved list of available sites. Proximity to the material source (landslide, rockfall) will be the primary consideration. The RP will contact the CHMP Project Manager (PM) or Project Engineer (PE) who will provide agency notification (according to the provisions of any future permit or agreement). No subsequent action or approval would be required, unless there was a substantive change in circumstances such as new information about potentially significant environmental impacts.

Provisions for use of each site include the following:

- a. **Material compatibility**— Source of material to be disposed of will be characterized by Geotechnical Engineering and Environmental Planning (for soil material type and vegetation components). Recommendations will be made to ensure long-term stability of the material and reduce the likelihood of inadvertently spreading seed from invasive plants. Unless there are specific ecological considerations, dissimilar material types (between the material source and the disposal site) would be acceptable. Recommendations for re-vegetation will be specific to the situation (i.e. importing top soil may be required for adequate plant establishment)
- b. **Staging**--A conceptual staging plan will be developed for each site; one objective of staging is to minimize the areas that are openly disturbed and to achieve re-vegetation of completed areas while other portions of the site remain available. Construction of each site is recommended to be done in lifts from the bottom up for maximum stability; this method is preferred to attempting to build in vertical stages (i.e. maximum height with minimal footprint). However, some sites may require other treatment depending on the site-specific conditions and use.
- c. **Compaction**— Compaction is required to maximize stability and minimize erosion.
Maintenance: Maintenance disposal will be compacted annually (by the fall of each year), by contract or with rented equipment.
Construction: Sites used by Construction will be compacted appropriately to ensure stability of the material placed.
- d. **Erosion Control**— Temporary and permanent erosion control measures will be established for each site depending on the length of time anticipated for disturbance. Best management practices for reducing impacts from sedimentation and erosion

from storm water runoff will be implemented. These measures will be applied to all areas disturbed by the activity including excavations, fill slopes, access roads and temporary stockpiles. Erosion control may include immediate seeding with non-persistent annuals, such as sterile wheat. Immediate seeding for erosion control may not be required, depending on season, availability of other acceptable erosion control measures, and the relative timing of re-vegetation (see below).

- e. **Revegetation & Planting:** Weeding will be a key component to successful re-vegetation. Weeds and invasive species will be eradicated prior to re-vegetation of the site. All appropriate sites will be re-vegetated with local materials, which may be a combination of seed and seedlings, depending on the target species. The re-vegetation shall be timed to take advantage of the fall rains in the same year as the primary work takes place. Whenever applicable, to ensure purity and maximize germination rates, the following practices are recommended for seed mix:
 - Planting will use native seeds and seedling plants. These materials, to the extent possible, will be locally collected and consist of species that are representative of the native plant community surrounding the affected area.
 - Propagate seedlings from locally collected seed
 - Collect seed annually; for storm damage projects, the timing of work will usually allow for seed collection in time for direct application and/or seedling propagation in the upcoming fall season
- f. **Plant Establishment:** Along with maintaining seedlings for a period of 3 years, exotic invaders will be eradicated on an annual basis for at least three years following seeding/planting. During a 3-year plant establishment period, brief annual reports will be prepared for each treatment site, documenting progress on achieving the objectives of the re-vegetation effort. During annual inspections, a qualified individual will assess such elements as 1) plant composition, density and percent cover; 2) the condition of the plants; 3) signs of damage; 4) status of exotic vegetation; and, 5) status of species of special concern. When deficiencies are identified, appropriate remedial measures should be described and carried out prior to the next annual monitoring inspection.
- g. **Site Preparation for Re-vegetation:** Native material from each site may also be used for mulch. A first order of work in site preparation will be the collection and stockpiling of native duff. Where existing native vegetation is removed, it may also be chipped and stockpiled for spreading over the finished surface when disposal is completed.
- h. **Monitoring—** Use of sites will be monitored for compliance with described patterns and conditions of use. Responsible parties (Maintenance Area Supervisor or Senior Construction Engineer) will coordinate with CHMP Project Manager to develop the best practices for providing assurances that the work complies with all agreed-upon strategies and regulatory requirements. Information will be provided to the regulatory agencies as required. Remedial measures will be outlined for cases where desired

objectives are not met (such as re-vegetation strategies). Duration of monitoring periods will differ according to the nature and extent of the impacts (temporary or permanent, type and sensitivity of resources affected).

E. Funding

The initial planning effort is funded in part by the State Planning & Research program related to the Coast Highway Management Plan. The proposed project is now funded by the Caltrans Minor A Program. Direct costs for site preparation, development and use will most likely be borne either by the Emergency Relief (ER) program administered by Construction (for a major event requiring contract work) or by Maintenance as part of their regular budget. Except for the latter (Maintenance budget), all other sources of funds include federal participation.

F. Environmental Review and Compliance

This Initial Study is being prepared in support of a Negative Declaration under the California Environmental Quality Act. As such, this document will also be used by other agencies in consideration of permit requests (see Section VII.). The Federal Highway Administration (FHWA) is the lead federal agency for the project. Based on preliminary information, the FHWA has indicated that with supporting technical studies, the recommended sites may be approved with a Categorical Exclusion for compliance with the National Environmental Policy Act (NEPA).

III. Timeline & Contingencies

A. Seasonal Timing

Storm events usually coincide with the heaviest rains generally occurring November-March, although landslide activity can occur even after several months of dry weather. It is desirable to have at least a minimum number of sites available for use prior to a specific need. However, the time required for environmental review and other agency approvals (permits) may likely extend reviews beyond the seasons when needs could arise. With the information provided through this Initial Study, however, we anticipate that agencies will have better information on which to make decisions should a specific need arise prior to having all agreements in place (for "pre-approval" of sites).

B. Contingencies: Interim procedures prior to project approval

The following outlines the steps that would be followed prior to issuance of permits or formal agreements to use any given disposal site:

- **Maintenance:** Notify Maintenance Superintendent/District Maintenance Engineer of event, need for disposal site; determine responsible party (RP) as either the Maintenance Area Supervisor or Senior Construction Engineer. RP contacts Project Manager (PM) for this project or the CHMP Project Manager (C-PM) of event and recommends use of a particular disposal site.
- **PM/C-PM:** Evaluate alternatives and consult with RP to confirm most appropriate disposal. Maintain internal communication.
- **Disposal PDT:** Informal review (via phone/e-mail/informal discussions) locations and confirm recommendations on site(s) to pursue approvals and conditions of use.
- **Environmental Manager:** Notify regulatory agencies of event with appropriate information and negotiate expedited approvals. (All agencies to be notified for information, though only a few may have jurisdiction over a particular site). Maintain external communication with agencies:
 - CA Coastal Commission
 - CA Department of Fish & Game
 - CA Department of Parks & Recreation
 - CA Regional Water Quality Control Board
 - Monterey Bay National Marine Sanctuary
 - Monterey County Planning
 - US Army Corps of Engineers
- **Public Affairs:** Notify community contacts/media; maintain public information
- **RP:** Carry out use of sites according to recommendations, permit terms, conditions and limitations; maintain contact with PM to update on progress and notify of changes in circumstances or needs; maintain communication with Public Affairs.

IV. Affected Environment

A. Physical

1. Topography

The project area is situated on the western slope of the Santa Lucia Mountain Range between San Carpofo Creek in San Luis Obispo County and the Carmel River in Monterey County. The Santa Lucia Range rises sharply from the rocky shoreline and coastal terraces along the Pacific Ocean to the highest peaks that exceed 5000 feet in elevation. Steep coastal canyons are common place as are near vertical rocky slopes. State Route 1 is carved out of the face of this rugged terrain and bridges many of the largest and deepest drainages. The highway winds sharply into canyons where it crosses perennial and ephemeral drainages and tends to be at its straightest when traversing coastal marine terraces.

2. Climate

Monterey County has a temperate Mediterranean climate. Conditions vary greatly throughout the county with the most moderate occurring along the coast where the Pacific Ocean and summer coastal fog moderate temperature fluctuations. The average mean coastal temperature is about 57°F (14°C). Warm summer day temperatures are typically near 60°F and cool winter nights drop close to 40°F. Precipitation is concentrated in winter. The western slopes of the Santa Lucia Mountain Range receive the highest amounts of rainfall in all of Monterey County with annual amounts varying between 18 and 64 inches.

3. Geology

The boundary between the northern and southern sections of the project area roughly coincides with the Maintenance Area boundaries of Big Sur and Willow Springs (Figure 2). Occurring sporadically along both the northern and southern sections are Quaternary marine terrace deposits. These deposits are exposed in wave-cut terraces with the old shoreline about 65 meters above sea level. The terraces are probably the result of complex late Quaternary uplift and fluctuations of sea level during and following the Ice Age. This material is very stable as seen in the steep slopes of the ocean bluffs and drainages. The material is subject to erosion during heavy rain, flooding and high surf.

Much of the project area in the southern section consists of Franciscan formation, much of which is melange – a mixture of large blocks of rock, from 300 mm in dimension to hundreds of meters in dimension, set in a matrix of fine grained silts and sheared rock. The melange is randomly juxtaposed against exotic blocks of sandstones, shale, basalts, and cherts of various stages of metamorphism. Large ancient (Paleocene) landslides have shaped much of the topography within the rock type, while now-stable smaller portions of these old slides continue to creep seaward. As a result, many of the natural slopes show evidence of instability. This instability can vary from soil creep (minor movements over extended periods of time) to massive landslides. Competency of the materials varies greatly.

In the northern section, the area is largely comprised of crystalline basement rock that has been intruded by granitic rock. Slopes here present no unusual problems. Most slope

instabilities are associated with the degree of weathering of the rocks. Debris flows are common surficial failures in the steep drainages flowing to the sea.

Site Specific Descriptions—Geology

Willow Springs (PM 10.4)

The site is located in a topographic low within a Paleocene Landslide in the Franciscan Formation. The slide is dormant and stable. Local stability is also good. The proposed disposal operations would not adversely affect stability.

Tree Bones (PM 11.0)

This site is located in a topographic low within a very large Paleocene landslide in the Franciscan Formation. The slide is dormant and stable with good local stability. The proposed disposal operations would not adversely affect stability. Freestanding water has been observed at this location and its origin is believed to be from surface water flow. There is no evidence of a spring. On-site materials are coarse, indicating sheet flow. There is no evidence of any drainage entering the area.

1983 Extension (PM 53.6)

The site geology is comprised of alluvium, outwash gravels of sandstone, siltstone and chert and wind blown sand dune deposits. Franciscan greywacke and conglomerate underlie the area. The foundation materials are good as is local and global stability in the area. The drainage downslope from the site flows into dune sands on the beach and not directly into the sea.

Gurries (PM 62.97)

Terrace deposits, gravel outwash materials and granitics comprise the rock types in the site. Local and global stability is good.

Garrapata Sites (#1-6)

Rock types in each of these sites are characterized by terrace deposits. Local and global stability is good.

4. Air Quality

The project area is located within the North Central Coast Air Basin (NCCAB). The Monterey Bay Unified Air Pollution Control District has jurisdiction over the air quality in the NCCAB (which includes Santa Cruz, San Benito, and Monterey Counties). Under both the Federal Clean Air Act and the California Clean Air Act (CCAA), the entire area has been designated a Moderate Non-Attainment area for ozone. Also under the CCAA, the entire air basin has been designated non-attainment for inhalable particulates (PM10). The NCCAB has been designated either unclassified or in attainment of all other state and federal ambient air quality standards for criteria pollutants.⁶

Conformity with federal plans is not required since this project is considered exempt⁷. The exemption applies since the project is considered a support activity for repair of damage caused

⁶ CEQA Air Quality Guidelines, MBUAPCD, August 1999.

⁷ 40 CFR Part 93

by natural disasters. The project does not propose substantial change in function, location, or capacity of the roadway. Therefore, the proposed disposal project meets the criteria for the exemption under the applicable regulations.

5. Hazardous Materials

None of the sites are known to contain hazardous waste or materials (past or present).

6. Hydrology and Water Quality

The project is within the Central Coast Hydrologic Basin Planning Area as established by the Regional Water Quality Control Board. The project boundaries cross two hydrologic units: the Santa Lucia Hydrologic unit and the San Carpoforo Hydrologic Storage Area of the Estero Bay Hydrologic Unit. Beneficial uses of the surface waters are for water supply (municipal and domestic), recreation and protection of aquatic life. The area immediately offshore is designated as the Monterey Bay National Marine Sanctuary, which is administered by the United States National Oceanic and Atmospheric Administration.

7. Noise

Sensitive noise receptors in the project include parks and recreation areas, schools and residences. Of the proposed disposal sites, those where noise could be a concern include Willow Springs (residences) and Garrapata State Park (recreation area).

B. Biological

Special-status species and sensitive natural communities were identified through database and literature searches. Field surveys were then conducted to identify and characterize the habitats in the project area. A complete list of special-status species and habitats potentially occurring within the project area can be found in the Natural Environment Study prepared for the project.

1. Sensitive Species

Two special-status species are a concern in the project area: Smith's blue butterfly (*Euphilotes entopes smithi*) and the Monterey Indian paintbrush (*Castilleja latifolia*). Smith's blue butterfly was listed as Federally Endangered on June 1, 1976, and is known to occur in the study area. Potential habitat for Smith's blue butterfly is characterized by the presence of dense populations of seacliff buckwheat (*Eriogonum parvifolium*). A habitat assessment survey for Smith's blue butterfly was conducted as part of the Natural Environmental Study for the project. Smith's blue butterfly was not found during focused surveys for the species.

Monterey Indian paintbrush was identified within and near the project area. This plant is not listed by either the U.S. Fish and Wildlife Service or the California Department of Fish and Game. It is listed by the California Native Plant Society as a List 4 plant. List 4 plants are of limited distribution or infrequent throughout a broader area in California, and their vulnerability or susceptibility to threat appears low at this time. Many of these plants are significant locally, and the California Department of Fish and Game recommends List 4 plants to be evaluated for consideration during preparation of environmental documents relating to CEQA.

California red-legged frog (*Rana aurora draytoni*), steelhead (*Oncorhynchus mykiss*), and southwestern pond turtle (*Clemmys marmorata pallida*) are known to occur within the overall

project boundaries but suitable habitat does not exist at the proposed sites. The unnamed drainages proposed as disposal sites have steep gradients, natural barriers, and lack suitable habitat (pools, gravel/cobble substrate) for steelhead. These characteristics, combined with the lack of little or no shallow ponded water also indicated an absence of suitable habitat for the California red-legged frog. The lack of permanent bodies of water and basking sites, such as partially submerged logs, vegetation mats, or open mud banks also indicated that no suitable habitat was present for the pond turtle. Since field surveys did not find suitable habitat or evidence of these species at any sites, it is assumed that these species do not utilize the areas within the proposed disposal locations. No focused surveys for other special-status wildlife were conducted.

2. Project Area Habitat Descriptions

Habitats in the project area are defined by the geology, topography, soils, and climate, and have been affected by prior and existing land use practices. Locations currently under consideration do not have distinctly different vegetation communities. The two major habitat types found in the project area are uplands and wetlands. Uplands generally are characterized as those habitats having well-drained soil and vegetation not adapted to living in seasonally or permanently saturated conditions. Wetland habitats are characterized by substrates that are seasonally or permanently flooded, or that have water tables near the surface. Wetland vegetation includes plants adapted to growing in undrained hydric soil.

Upland habitats comprise the majority of the project area. The primary upland habitats found at the proposed disposal sites are Coastal Bluff Scrub, Coastal Sage Scrub, Central Coast Scrub, Ceanothus Scrub, Ruderal, Wetlands, Central Coast Arroyo Willow Riparian, and Windrows. Potential jurisdictional waters of the United States include both permanent and seasonal wetlands. Vegetation communities have been characterized primarily by following the descriptions by Holland (1986) and Sawyer and Keeler-Wolf (1995).

- a. **Coastal Bluff Scrub:** Coastal bluff scrub is located on ocean facing cliffs. It occurs on shallow soils, in areas of strong winds, and areas prone to landslides. Plants are often short in stature due to wind pruning. Plant cover of this vegetation type can vary between 20 to 80 percent. This vegetation is composed of California sagebrush (*Artemesia californica*), coyote brush (*Baccharis pilularis*), seaside daisy (*Erigeron glaucus*), liveforever (*Dudleya caepitosa*), lizardtail (*Eriophyllum stachaeifolium*), and stick monkey flower (*Mimulus aurantiacus*).
- b. **Coastal Sage Scrub:** This habitat is very similar to coastal bluff scrub but grows on the middle to upper slopes of streams canyons and road cuts that are protected from wind. It is found on relatively shallow soil. Plants in this association grow approximately 3 feet tall and cover varies between 20 to 100 percent. Vegetation is dominated by xeric adapted plants such as seacliff buckwheat (*Eriogonum parvifolium*), California sagebrush, sticky monkey flower, black sage (*Salvia mellifera*) and California bricklebrush (*Brickellia californica*). Poison Oak (*Toxicodendron diversilobum*) and coyote brush are also present but at lesser densities.

- c. **Central Coast Scrub:** This habitat is dominated by coyote brush and sub-dominated by poison oak. Other plants present include sticky monkey flower, California sagebrush, seacliff buckwheat, and lizardtail. Plants in this association are often six or more feet tall and vegetation cover approaches 100 percent. Coastal scrub grows on cliffs facing the ocean, on slopes of canyons, and the tops of ridges. This plant association grows in areas of relatively deep soil or in more mesic situations than coastal bluff scrub.
- d. **Ceanothus Scrub:** The ceanothus scrub association is dominated by blue blossom (*Ceanothus thyrsiflorus*). Coyote brush and poison oak grow as subdominants in this association. Lizardtail also occurs in the plant association but in lesser abundance. Plants in the habitat reach six feet tall and vegetation cover approaches 100 percent. This association grows on slopes that either face the ocean or north facing slopes above drainages. Ceanothus scrub appears to grow in deeper soils or in relatively mesic areas as compared to coastal bluff scrub, coastal sage scrub, or central coastal scrub.
- e. **Seasonal and Perennial Wetlands (Waters of the United States):** Seasonal wetlands are areas that collect water for a limited time and are characterized by annual species and perennial vegetation adapted to survive the dry season. Intermittent drainages flow from higher elevations along the coastal slope of the Santa Lucia Mountains and into the ocean. Some of these areas collect water in areas of level or depressed topography. Dominant vegetation observed in these wetlands include rabbitfoot grass (*Polypogon monspeliensis*), curly dock (*Rumex crispus*), willow dock (*R. salicifolius*), common rush (*Juncus effusus*), yellow nut-grass (*Cyperus eragrostis*), and scattered emerging arroyo willows (*Salix lasiolepis*).

Perennial wetlands have a constant source of water, but do not support emergent vegetation characteristic of a freshwater marsh. These areas are associated with springs and seeps that provide surface and subsurface water. Some of these wetlands feed drainages that flow into the ocean. Dominant vegetation observed in perennial wetlands include those found in the seasonal wetlands plus brass buttons (*Cotula coronopifolia*), common monkey flower (*Mimulus guttatus*), scarlet monkey flower (*M. cardinalis*), willow herb (*Epilobium* sp.), watercress (*Rorippa nasturtium-aquaticum*), horsetails (*Equisetum* sp.) and cattails (*Typha* sp.).

Potential jurisdictional waters of the United States were identified at seven of the proposed sites. Formal wetland delineations following the U.S. Army Corps of Engineers (ACOE) *Wetlands Delineation Manual* (1987) have been conducted at Treebones, Gurries, 1983 Extension, Garrapata #1, #3, and #6. The wetland areas will be avoided at the Treebones site. No wetland areas were identified at the Gurries, Garrapata #1, or #3 sites. The 1983 Extension site included 0.05 acres of wetlands that will be impacted. Garrapata #6 included 0.08 acres of wetland that will be impacted.

- f. **Ruderal:** Ruderal vegetation consists of native and non-native weed species that tend to invade disturbed areas such as roadsides. Ruderal vegetation can occur as

understory vegetation or as a component of another plant community such as non-native grasslands. In the project area this type of vegetation invades not only the roadside but other disturbed areas including abandoned roads, trails, and exposed landslide and other slope faces. Ruderal vegetation in the project area includes horseweed (*Conyza canadensis*), bristly ox-tongue (*Picris echioides*), sea fig (*Carpobrotus chilensis*), jubata grass (*Cortaderia jubata*), cut-leaved plantain (*Plantago coronopus*), weedy cudweed (*Gnaphalium luteo-album*), kikuku grass (*Pennisetum clandestinum*), and poison hemlock (*Conium maculatum*).

- g. Central Coast Arroyo Willow Riparian:** Central Coast Arroyo Willow occurs near the coast on low gradient freshwater drainages, in moist to saturated sandy or gravelly soils within the coastal fog inclusion zone. Arroyo willow (*Salix lasiolepis*) dominates this habitat and is sometimes the sole shrub or tree. It typically grows in dense, low, closed canopy forests along permanent and intermittent stream banks. Associate species found in this habitat can include white alder (*Alnus rhombifolia*), wax myrtle (*Myrica californica*), coyote brush (*Baccharis pilularis*), and mugwort (*Artemisia douglasiana*). This habitat was found at the 1983 Extension and the Gurries sites.
- h. Windrow:** Windrows are trees that have been planted in rows or somewhat linear groves. Often these trees are non-native horticultural varieties. Windrows of eucalyptus, Monterey pine, and Monterey cypress have been planted throughout the Big Sur region. These plantings have created habitats that are useful to some wildlife species. A windrow of Monterey Cypress is located along the southerly edge of the 1983 Extension site. The stand is spreading into the proposed disposal site.

Site Specific Descriptions—Biology

Willow Springs (P.M. 10.4)

The site covers approximately 1.85 acres, including a westerly aspect hillside. Roughly 75% of the site is undisturbed hillsides vegetated with high quality Central Coast Scrub. The other 25% is the lower portion of the site which shows past soil disturbance and has been invaded by ruderal vegetation. French Broom (*Genista monosperma*) and other exotic plants are found along the access road to the site. Native bunch grasses cover the southern side (northwest facing slope) above the site. Starting at the upper edge of the Central Coast Scrub and continuing up into the grassland above, is a mixed age stand of *E. parvifolium*, composed of approximately 200 plants. Approximately 18 plants are also spread along the dirt access road. One small female blue butterfly seen at the grassland site was not identified to species. No wetlands are present on the site.

Tree Bones (P.M. 11.0)

This site is similar to the Willow Springs site in terms of past disturbance. This is a 4.68-acre site with a westerly aspect. Approximately 80% of the site vegetation is good quality Central Coast Scrub and the other 20% is disturbed and invaded by ruderal species. Immediately adjacent to the site is an estimated 0.65-acre seasonal pond at the bottom of a natural basin. Ruderal vegetation has been introduced along the dirt road to the site, the trail leading from the road to the pond, and within the basin's exposed banks. French

broom is present along the dirt road. There was evidence of wildlife use of the small pond, such as tree frog tadpoles, gopher snake and several bird species; numerous animal tracks to the pond were also noted. There is a patch of seacliff buckwheat located on the slope above the pond with an estimated 50 plants. Three small, unidentified butterflies were seen in this area. Buckwheat is also present along the access road to the site.

1983 Extension (P.M. 53.6)

This site consists of an eroded gully located west of State Route 1 on the El Sur Ranch. The erosion did not occur recently and the site is vegetated with several habitat types, including: Central Coast Scrub, Arroyo Willow Riparian, Monterey Cypress Woodland and Waters of the United States. The site has a westerly aspect; the drainage runs in a southerly direction. Waters of the United States are present in the form of seasonal wetlands. A 0.05 acre seasonal wetland located between the highway and the site will not be affected by the proposed material disposal. Approximately 0.025 acres of seasonal wetlands located along the edges of drainage channel will be impacted. Where access is available, cattle graze the gully and surrounding grasslands. Habitats at this site are somewhat degraded. No sensitive species, or habitat for sensitive species, were observed during field surveys.

Gurries (P.M. 63.0)

There are four proposed disposal areas at this site located on the easterly side of State Route 1. Two (B and D) are in a shallow canyon and the other two (A and C) are on a westerly facing hillside. There are signs of past ground disturbance and soil disposal at the canyon bottom and from the dirt road winding up the hill on the north side of the canyon. Areas B and D total 2.33 acres in size. Habitat is Coastal Sage Scrub and Ceanothus Scrub with approximately 33% ruderal vegetation. There is a natural seep in the canyon above the proposed disposal site (area B). The drainage running through the canyon has a small watershed and there were signs of deer-grazed plants. There is less than 0.01 acre of waters of the United States in area B. Because of past disturbance, the site is infested with several species of non-native noxious weeds including Cape ivy (*Senecio mikanooides*), French broom, kikuyu grass, mustard (*Brassica* sp.), and poison hemlock (*Conium maculatum*). Less than ten *Eriogonum parvifolium* are scattered around Area B.

Areas A and C also show past disturbance with about 33% non-native invasive plants. These sites are stable and have a westerly aspect. These two areas comprise approximately 1.87 acres and are comprised of a mixture of Ceanothus and Coastal Sage Scrub habitat. Similar non-native vegetation is present. There are no waters of the United States on sites A or C.

Garrapata Sites

Site #1 (P.M 66.4)

Garrapata #1 is a 0.2-acre eroded drainage on the westerly side of State Route 1. Habitat within the drainage is primarily ruderal non-native and remnant Coastal Bluff Scrub species (> 50% exotics); the bluff above the site is Coastal Bluff Scrub. The site also contains 0.1 acre of waters of the United States. One seacliff buckwheat was found on the

bluff above the drainage and about 20 plants were found just south of the site. A single Monterey Indian paintbrush plant was found just south of the site.

Site #3 (P.M. 65.3)

This site also involves an eroded drainage on the westerly side of State Route 1. The disposal site is a disturbed area of 0.1 acre of very weedy (50% exotics) Coastal Bluff Scrub that is heavily invaded by sea fig (*Carpobrotus chilensis*). The bluff to the north is vegetated with Coastal Sage Scrub. The lower portion of the drainage is considered Waters of the United States, while the balance is upland habitat. No sensitive plant or animal species were found on the site or are expected be present. Seacliff buckwheat and Monterey paintbrush are located along the south bluff above the eroded bank.

Site #6 (P.M. 67.0)

This area includes approximately 0.07 acre of potential jurisdictional wetlands (seasonal) and 0.07 acre of trails (bare ground). Of the remaining 0.66 acre site, roughly half is bare ground used for off highway parking and the remainder is disturbed Coastal Bluff Scrub. Over thirty seacliff buckwheat plants are present in the proposed expanded parking area.

C. Social & Economic

1. Cultural & Historic

The history of the Big Sur coast begins long before Euroamericans settled the area. Prior to contact, the central California coast was occupied by a number of relatively small, autonomous communities. Archaeological evidence shows that the area was first occupied as far back as 4500 B.C. The First People of the area now known as Big Sur were native speakers of Costanoan, Esselen, and Salinan. Very little is known about their pre-contact lifeways or their territorial limits. It is likely that those groups residing near the edge of their territory probably inter-married and in some instances were bilingual. Their main villages were most likely located inland from the coast in an area rich in acorn and game. Coastal camps were largely seasonal sites used for the collection of shellfish, the hunting of marine and terrestrial game, and for fishing.

In 1769 Gaspar de Portola made the first overland trip through the area, which was soon followed by the establishment of the missions: Mission San Carlos de Borromeo, 1770; Mission San Antonio de Padua, 1771; Mission Nuestra Senora de la Soledad, 1791; and Mission San Miguel Arcangel, 1797. The establishment of the mission system served to disrupt native life and bring about devastating change to their social, political, and economic structure. The descendants of the First People of the Big Sur coast still reside in the area and are active in their communities and the preservation of their cultural heritage.

Following the secularization of the mission system in 1833 there were only two land grants in Big Sur country. Both were located at the upper end of the Big Sur range, from the Big Sur River mouth north to Carmel. Many of the pioneer families of the Big Sur coast arrived in the period from the 1860s to the 1890s. The place remained isolated, connected to Monterey by a primitive wagon road. It wasn't until the early 1920s that construction began on the road that was to become Highway 1. The road was completed in 1937, opening one of the last wild coastal places in California.

Review of records and results of field reconnaissance surveys revealed no evidence of cultural or historic material at any of the recommended disposal sites.

2. Visual & Aesthetics

The route has the distinction as being the first designated state scenic highway in California. This distinction is matched only by its 1996 federal designation as an All American Road, the highest honors given by the National Scenic Byways Program. Vistas offered of vast open spaces, windswept cypress trees and the surf crashing onto the rocky shoreline invite people from all over the world to experience traveling the route. The County of Monterey, under the authority coastal protection, has acquired easements to protect scenic views along the Highway One corridor.

Site Specific Descriptions—Visual

Willow Springs (P.M. 10.4)

The site is separated from the highway by 150 meters. In addition, there is a ridge which completely obscures views of the disposal site for motorists. There are no residences or businesses within sight and there is no view from the ocean.

Tree Bones (P.M. 11.0)

The Tree Bones site is separated from Route 1 by more than 200 meters of undulating land blocking views from the highway. The disposal site is relatively undisturbed chaparral with 3 mature cypress trees. There are no residences or businesses within the site's viewshed except for one trailer approximately 70 meters away which has a partial view of the disposal site. The area around the residence is presently disturbed.

1983 Extension (P.M. 53.6)

This site is an eroded gully cutting through a field at the toe of a small, tree-covered knoll. The rutted, near-vertical sides of the gully detract from the otherwise scenic vista towards the ocean and Point Sur. The site is visible for about 5 seconds to southbound travelers at highway speeds; the tree-covered knoll blocks the view for northbound travelers until the site is perpendicular to the viewer.

Gurries (PM 63.0)

The Gurries site is located on the east side of the highway. The topography of the site is undulating but consists primarily of a shallow canyon heavily vegetated with chaparral and a few trees. From the highway traveler's view, most of the areas are predominantly obscured from view by a ridge and vegetation. There are limited views of the site in the northbound direction. There are several homes opposite the site on the west side of the highway which have a partial view in the direction of the site. There are no other residences or businesses within the viewshed of the disposal site and it is not visible from the ocean.

Garrapata State Park Sites (PM 63.6/67.0)

All of these sites are on the ocean side of the highway and most are in eroded canyons or gullies.

Site #1 (PM 66.4)

This site is an eroded bank, but it is higher than the road on a north-facing bank. Visibility from the north lasts about 3 seconds at highway speeds and less than a second from the south. There is a long turnout on the shoulder leading to the site on the north side. The existing condition of the site is highly disturbed and the continuing erosion of the bank detracts from the viewshed.

Site #3 (PM 65.3)

Among this group of sites within the State Park, this is the smallest and least visible for most user groups. Essentially, it consists of an eroded gully about half as wide as it is long, just outside the shoulder of the road on the ocean side. Traveler's views are minimal because the gully is below the road grade and it is far enough from the edge of traveled way that the shoulder blocks views. Hikers on Soberanes Point may be able to see the disposal site, but there is a large slipout repair adjacent to the site which is much more visually prominent.

Site #6 (PM 67.0)

This site runs parallel to the highway just outside the shoulder on the ocean side at a location where a pullout exists currently. The slope, extending down about 6 meters below the road grade has some erosion problems and is developing weed problems. Disturbance is moderate in this location and cars are often parked on the turnout, further impacting views. The turnout that would be removed to the north is experiencing the same problems.

3. Adjacent Land Uses

Major land use in the area includes recreation, cattle ranching, and residences. Rural residences are spread along the entire length of the project area and can be found on steep coastal sites, marine terraces, and along wooded stream corridors. Commercial development is concentrated in the communities of Big Sur, Lucia and Gorda. Cattle grazing is most prominent on the coastal marine terraces where grass production is highest.

Agriculture & Open Space: Much of the land along the highway corridor is in Agricultural and/or Open Space use. The County of Monterey has taken steps to protect views in the Highway 1 corridor through various provisions of their Local Coastal Plan. Furthermore, a number of properties within the critical viewshed have been encumbered with easements to protect key views from changes that would create adverse visual impacts.

Recreation: Public recreation is a key amenity associated with the coast route, where hiking, camping and water activities are popular. Eight state parks and the Los Padres National Forest are found along the length of the route in the project area. Access to other public lands includes the coast itself (shoreline, beaches and surf).

4. Transportation/Traffic

Transportation in the project area is provided exclusively by Highway 1. Although there are a limited number of roads which intersect the highway, only one connection is a through road: Nacimiento-Ferguson Road, along the south coast (P.M. 18.9) which leads to Route 101 outside of Fort Hunter Liggett in southern Monterey County. As such, the continuity of providing passage along Route 1 is critical to many residents, communities and businesses between San Simeon (San Luis Obispo County) and Carmel and the Monterey Peninsula.

5. Public Services

The California Highway Patrol serves the area routinely. The Monterey County Sheriff's Department, the Big Sur Fire Brigade, the Pacific Valley Volunteer Fire Company, and the US Forest Service provide fire protection and emergency services. Schools are located in Pacific Valley and Big Sur (Captain Cooper).

V. Environmental Evaluation Checklist

A. Technical Studies

The following studies were prepared for or used as references for this report; these studies were prepared by Caltrans and can be obtained or reviewed by contacting Aileen Loe at Caltrans District 5, 50 Higuera Street, San Luis Obispo 93401, or by calling (805) 549-3103.

Air, Noise & Water Technical Statements. September, 1999

Geotechnical Site Investigation. October, 1999

Historic Property Survey Report. September, 1999

Preliminary Geology Report for Highway 1 in San Luis Obispo and Monterey Counties (Piedras Blancas to the Carmel River Bridge). April, 1995.

Visual Analysis. October, 1999.

Natural Environment Study. October, 1999.

B. Significance Checklist

The following checklist has been prepared according to the CEQA Guidelines and is based on the technical studies above. Discussion of the answers follows the complete set of questions.

EVALUATION OF ENVIRONMENTAL IMPACTS

Checklist Guidelines:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

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- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact”. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section IV, “Earlier Analyses”, may be cross-referenced).
 - 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
 - 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
 - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
 - 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significant.

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
A. PHYSICAL				
1. Air Quality Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Geology & Soils Would the project:				
a) Expose people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL CHECKLIST (cont'd)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life of property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Hazards & Hazardous Materials				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (cont'd)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Hydrology & Water Quality				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk or loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Mineral Resources				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (<i>cont'd</i>)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Noise				
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (<i>cont'd</i>)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
B. BIOLOGICAL				
1. Biological Resources				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approval local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (<i>cont'd</i>)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
C. SOCIO-ECONOMIC				
1. Aesthetics				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Agriculture				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Cultural				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (<i>cont'd</i>)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Restrict existing religious or sacred uses within the potential impact area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Land Use & Planning Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Population & Housing Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Public Services Would the Project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (cont'd)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Recreation				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Transportation & Traffic				
Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (<i>cont'd</i>)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Utilities & Service Systems				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL CHECKLIST (<i>cont'd</i>)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VI. Discussion of Environmental Evaluation

The following discussion relates to the preceding checklist. Note that the project description (Section II. C.) includes measures applicable to all of the sites intended to avoid or minimize impacts. Additional measures are included below where needed to ensure impacts are reduced to a less than significant level.

A. PHYSICAL

1. Air Quality

Will the proposal either directly or indirectly:

- a) **Conflict with or obstruct implementation of the applicable air quality plan?**
NO IMPACT. As noted above (Section IV. A.) the proposed work meets the criteria for an exemption and no conformity finding is required.
- b) **Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**
LESS THAN SIGNIFICANT. The project is within a non-attainment area under state standards for PM10 (particulate or dust). Grading operations may generate temporary but insignificant increases in the amount of particulate. Standard dust control measures for handling material would adequately ensure impacts are less than significant.
- c) **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**
NO IMPACT. Increases in PM10 would be temporary and very short in duration. Cumulative effects from disposal operations would not occur.
- d) **Expose sensitive receptors to substantial pollutant concentrations?**
LESS THAN SIGNIFICANT. Sensitive receptors for air quality in the project area are limited to residences near the Willow Springs site. The residences are at a lower elevation and protected by a ridge from the proposed disposal site. Dust generated from trucks driving through the area to access the site can be controlled with regular watering of the surface, if needed. Dust generated by the disposal activity would not be expected to expose the residents to substantial concentrations of PM10 or any other known pollutants.

Construction air pollution impacts will vary directly by the length of haul. Generally, the least impacts will be in situations where the material could be disposed of on-site, while the greatest impacts will be associated with disposal sites at long distances from landslide sites. The greatest potential air quality impacts will most likely result with the No-Project alternative, which could result in material being hauled to landfills outside of the project area.

- e) **Create objectionable odors affecting a substantial number of people?**
NO IMPACT. The proposed project would neither directly nor indirectly create objectionable odors.

2. Geology and Soils

Will the proposal either directly or indirectly:

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i. **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**
NO IMPACT. The nature of the proposed project would aid in response to earth movements as a result of faulting, seismic shaking or ground failure. The proposed project would not expose people or structures to any additional risks.
 - ii. **Strong seismic ground shaking?**
NO IMPACT. Please see response to i. above.
 - iii. **Seismic-related ground failure, including liquefaction?**
NO IMPACT. Please see response to i. above.
 - iv. **Landslides?**
NO IMPACT. Due to the naturally high level of geologic activity, the project is a response to the natural exposure to adverse effects faced by those living near or travelling on the coast route.
- b) **Result in substantial soil erosion or the loss of topsoil?**
LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.
 Loose, unconsolidated material left untreated has potential to erode away from the site, causing unintended impacts to adjacent habitats and waterways. Temporary and permanent erosion control measures would be established for each site depending on the length of time anticipated for disturbance. Best management practices for reducing impacts from sedimentation and erosion from storm water runoff would be implemented. These measures would be applied to all areas disturbed by the activity including excavations, fill slopes, haul and access roads and temporary stockpiles.

Mitigation Measures:

ER/SED-1: Disposal sites would be constructed and managed to minimize erosion; work at each site would employ one or more of the following measures:

Finished surface areas (slope flatter than 2:1):

- Compact soil
- Apply straw
- Apply soil amendment
- Spread seed
- Add stabilizing emulsion

Finished slopes (slopes 2:1 or steeper):

- Compact soil
- Incorporate slope stabilizers (geogrid fabrics)
- Apply straw
- Place erosion control mat or blanket
- Apply stabilizing emulsion
- Install biomechanical stabilizers (fiber rolls, straw bales)
- Hydroseed

Note: See also measures for re-vegetation (Section B. Biological). There is a distinction between the mechanical measures to control erosion and sedimentation from those to re-vegetate a disturbed area. Often the efforts are combined to achieve optimum results, but for purposes of discussion and site management, this distinction is important.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

NO IMPACT. Each of the proposed disposal sites has been evaluated for local and global stability and with proper construction techniques would not pose further risks from secondary landsliding.

- d) **Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

NO IMPACT. The presence or absence of expansive soils will not affect the proposed work.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

NO IMPACT. Not applicable.

3. Hazards and Hazardous Materials

Will the proposal either directly or indirectly:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
NO IMPACT. Material to be transported and disposed of at these sites will include natural landslide debris, which is highly unlikely to contain any hazardous materials. In the event that material from a landslide or debris flow was suspect (e.g. unusual odor detected), a specialist qualified to detect and remediate hazardous materials would be consulted prior to any excavation or transport.
- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**
NO IMPACT. None of the proposed disposal sites are known to contain the presence of hazardous waste or materials (past or present) and the work would not present any risk of exposure.
- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**
NO IMPACT. No hazardous emissions would result from the transport or placement of natural landslide materials.
- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**
NO IMPACT. No such sites are located within the project area.
- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**
NO IMPACT. Not applicable.
- f) **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**
NO IMPACT. Not applicable.
- g) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**
LESS THAN SIGNIFICANT IMPACT. The project is a necessary element in providing adequate emergency response (from a storm or other natural event resulting in disruption to traffic). Construction of the project must be coordinated with Monterey County Office of Emergency Services, County Sheriff and the California Highway Patrol to consider needs for emergency access or evacuation.

- h) **Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**
NO IMPACT. The project would not result in increased exposure to these risks. The project would, however, aid in the secondary response to debris flows which may result from storm events following seasons with wildland fires. Heavily scorched areas within watershed areas are subject to higher levels of surface erosion. The proposed project works in anticipation of needs which could result from such events.

4. Hydrology and Water Quality

Will the proposal either directly or indirectly:

- a) **Violate any water quality standards or waste discharge requirements?**
NO IMPACT. Impacts to water quality are not expected (see response below to c).
- b) **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?**
NO IMPACT. The only water required for the project would be for proper compaction, or occasionally as dust control, if needed. Quantities of water for these purposes would be minimal.
- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**
LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.
Potential impacts to water quality are associated with erosion/sedimentation from the proposed disposal sites. Best management practices for reducing impacts from sedimentation and erosion from storm water runoff would be implemented. These measures would be applied to all areas disturbed by the activity including excavations, fill slopes, haul and access roads and temporary stockpiles.

Mitigation Measures:

ER/SED-2: Where nearby waterways could be affected by disposal activities, water pollution prevention measures shall be incorporated; they may include, but not be limited to placement of straw bales or fabric siltation barriers.

- d) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Disposal activities involving drainages include the following:

- 1983 Extension
- Gurries
- Garrapata (Sites # 1, 3, & 6)

Using these areas for disposal would involve alteration by changing the pattern from surface to subsurface flow (i.e. transported via culvert beneath an earthen fill). Conveying the water through a culvert allows the flow to continue along the same course and fall rate (elevation). Doing this, however, results in a permanent loss of the surface drainageway and any attendant riparian features. For further discussion of impacts and proposed mitigation measures, see discussion below (Section B. Biological).

- e) **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

LESS THAN SIGNIFICANT IMPACT. The project would not influence the capacity of existing stormwater systems. The above-named sites involving waterways will be designed with culverts sized to accommodate 50-year storms.

- f) **Otherwise substantially degrade water quality?**

LESS THAN SIGNIFICANT IMPACT. Potential impacts to water quality are associated with sedimentation and erosion control (described above under c).

- g) **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

NO IMPACT. Not applicable.

- h) **Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

NO IMPACT. Structures would be limited to drainage facilities, such as culverts, for accommodating natural flows. The structures would be designed to effectively accommodate stormwater and would, by design, not impede flow.

- i) **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as result of the failure of a levee or dam?**

NO IMPACT. The project would not introduce any new risks associated with flooding.

- j) **Inundation by Seishi, tsunami, or mudflow?**
NO IMPACT. The proposed project aids in response to events spawned by natural disaster, such as a mudflow.

5. Mineral Resources

Will the proposal either directly or indirectly:

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
NO IMPACT. Not applicable.
- b) **Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**
NO IMPACT. Not applicable.

6. Noise

Will the proposal result in:

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**
NO IMPACT. Construction activities would not elevate noise levels above any standards.
- b) **Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**
NO IMPACT. The project will not involve operations such as drilling or pile-driving which could result in vibrations.
- c) **A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**
NO IMPACT. There would be no permanent increase in ambient noise levels as a result of the proposed project; only temporary impacts would occur with the operation of heavy equipment.
- d) **A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**
LESS THAN SIGNIFICANT. The only noise associated with the project would be the short-term operation of heavy equipment (construction noise). Sensitive receptors are present at Willow Springs (residences) and at the Garrapata sites (recreation). At Willow Springs, access is through the Caltrans Maintenance yard, where several occupied residences would be affected by the noise of a disposal

operation. Within the state park, since disposal operations would be periodic and short-term they would not substantially impact the park user.

Mitigation Measures:

NOI-1: Operations at the Willow Springs disposal site would be limited to daytime hours.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**
NO IMPACT. Not applicable.
- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**
NO IMPACT. No private airstrips are known within proximity to any of the proposed disposal sites.

B. BIOLOGICAL

1. Biological Resources

Will the proposal either directly or indirectly:

- a) **Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**
LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.
Impacts related to the proposed disposal have potential for direct and indirect impacts to sensitive or special status species. Mitigation measures are proposed for potential impacts to Smith's blue butterfly, Monterey Indian paintbrush, and native habitats.

Impacts by habitat type are shown in Table 5 below. Sensitive species habitat has been located at the following sites:

Willow Springs (P.M. 10.4)

Sensitive areas: A community of seacliff buckwheat (host plant to the federally listed Smith's blue butterfly) is present in the southeast corner of the site and along the access road. The proposed project will result in impacts to the seacliff buckwheat community along the road. Consultation is currently underway with USFWS. No work will begin until the consultation process is complete.

Mitigation measures:

Establish seacliff buckwheat community to SE of site as an Environmentally Sensitive Area (ESA) with fencing; the area will remain off-limits during construction to avoid inadvertent impacts. The seed mix for restoration shall contain seacliff buckwheat. (BIO-4, -6, -9 see below)

Tree Bones (P.M. 11.0)

Sensitive areas: A community of seacliff buckwheat occurs on the east side of the pond and along the access road. A seasonal wetland area has been identified in the vicinity of the pond.

Mitigation measures:

Establish seacliff buckwheat community on the east side of the pond and along the access road as an Environmentally Sensitive Area (ESA) with fencing; the area will remain off-limits during construction to avoid inadvertent impacts. Seed mix for restoration shall contain seacliff buckwheat. The proposed disposal site at this location will be designed to avoid the entire pond and wetland area. The pond and wetland area will be established as ESA and the area will remain off-limits during construction (BIO-4, -6, -9 see below).

Gurries (P.M. 63.0)

Sensitive areas: A community of seacliff buckwheat occurs on the south bank/north face near the old road cut. A stand of willows is located by the highway, next to the existing culvert.

Mitigation measures: Establish seacliff buckwheat community on the south bank/north face near the old road cut as an Environmentally Sensitive Area (ESA) with fencing; the area will remain off-limits during construction to avoid inadvertent impacts. Seed mix for restoration shall contain seacliff buckwheat (BIO-4, 6, & 9). In addition, establish the stand of willows located by the highway next to the existing culvert as an ESA with fencing; the area will remain off-limits during construction to avoid inadvertent impacts.

Garrapata Sites #1, 3, & 6 (P.M. 63.6/67.0)

Sensitive areas: Assuming all disturbance is contained within the eroded drainages, collective impacts will be as follows: 0.50 acres of Coastal Bluff Scrub communities, 0.40 acres of Ruderal and bare soil areas, and 0.21 acres designated as Waters of the US, for a total of 1.11 acres of habitat loss.

Mitigation measures: BIO- 1, 2, 3, 5, 6, 7, 8, 9 (including seacliff buckwheat and Monterey Indian paintbrush in the seed mix) & 10.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Impacts to the natural environment with the disposal include direct and indirect impacts. The predominant (direct) impact with disposal is related to loss of native vegetation. A secondary effect (indirect impact) is often the spread of exotic plants, which prefer disturbed soils along the coast.

Project impacts are primarily temporary in nature. Most sites proposed for material disposal show signs of previous disturbance through erosion and spreading non-native vegetation. Vegetation losses will be mitigated and some sites enhanced through elimination of exotic vegetation.

Permanent impacts will occur to waters of the United States and riparian habitat. Culvert extensions and gully restorations will affect approximately 0.26 acres of jurisdictional waters and 0.15 acres of riparian habitat. No special-status species will be affected by loss of these waters or riparian areas.

Temporary impacts will include loss of 13.13 acres of disturbed and native habitats. These impacts are considered temporary, as successful site restoration would re-establish these plant communities. Table 5 shows the impacts at each site by habitat type:

Table 5: Project Impacts by Location and Habitat Type

Site	Coastal Bluff Scrub	Coastal Sage Scrub	Central Coast Scrub	Ceanothus Scrub	Wetlands/ Waters of the U.S.	Arroyo Willow Riparian	Ruderal & Bare Soil	Wind-row	Totals	Biological Mitigation Measures
Willow Springs			1.35				0.50		1.85	BIO-1,2,3, 4,5,6,9.
Tree Bones			3.75				0.93		4.68	BIO-1,2,3 4,5,6,9.
1983 Extension			1.0		0.05	0.15		0.10	1.30	BIO-1,2,3, 4,6,7,9,10.
Gurries		3.0		1.19					4.19	BIO-1,6, 9
Garrapata # 1	0.1				0.1				0.20	BIO-1,2,3, 5,6,7,8,9,10
Garrapata #3	0.07				0.03				0.10	BIO-1,2,3, 5,6,7,8,9,10
Garrapata #6	0.33				0.08		0.4		0.81	BIO-1,2,3, 5,6,7,8,9,10
Totals	0.50	3.0	6.10	1.19	0.26	0.15	1.83	0.10	13.13	

With successful implementation of the proposed mitigation measures, the project will have no significant impacts on biological resources in the project area.

Mitigation Measures:

The following mitigation measures are proposed to avoid, minimize, and compensate for any potential impacts to habitat resulting from the disposal of material at the proposed sites.

BIO-1 (Limit Disturbance): Clearly mark site boundaries with stakes prior to construction to avoid unnecessary disturbance of existing vegetation.

BIO-2 (Duff Collection): For sites predominantly vegetated with native plants, native duff will be collected and stored for later use. This will occur as a first order of work in site preparation. The material must be stockpiled in a manner where it is protected from erosion until finish grading is complete and the material can be applied prior to re-vegetation. The objective is to retain as much of the naturally occurring material as possible for re-application on the site, and limit the amount of imported material required (for topsoil and mulch).

BIO-3 (Environmentally Sensitive Areas-ESAs): Avoid disturbance of sensitive habitat areas, such as riparian vegetation, emergent wetland areas, and populations of seacliff buckwheat. Establish Environmentally Sensitive Areas (ESA) including placement of temporary fencing (such as orange construction fence) identifying the ESA as off-limits so as to prevent inadvertent impacts during construction.

BIO-4 (Minimize Riparian Impacts): Where impacts cannot be avoided to riparian vegetation, such as willows, removal or trimming shall be controlled, to minimize the disturbance and by cutting stems at the base to allow for natural re-sprouting.

BIO-5 (Buckwheat): For sites near potential Smith's blue butterfly habitat (i.e., a population of seacliff buckwheat), a Caltrans biologist shall direct the establishment of an Environmentally Sensitive Area (ESA) in the field (such as orange fencing) between the work area and the potential habitat area. In addition, any seacliff buckwheat plants within the boundaries of a disposal area shall be cut at the base, the duff below collected, and the plant and duff placed in and under a nearby plant.

BIO-6 (ER/SED-1): Implement erosion control measures during construction. Install silt fencing and barriers immediately downstream of and around disposal sites. Installation and maintenance of silt fencing and barriers should follow Caltrans Best Management Practices.

BIO-7 (ER/SED-2): Creek diversion outlets should discharge into silt fence barriers to reduce sedimentation in the water column. Water passing through the last silt fence, barrier, or filter should be clean with no distinguishable suspended sediments.

BIO-8 (Stream Diversion-Intake): Diversions requiring pumping should have pump intakes fitted with appropriately sized mesh screen to avoid the intake of aquatic vertebrate species.

BIO-9 (Revegetation): All disturbed areas will be treated for erosion control and ultimately re-vegetation. Re-vegetation is the main method of mitigating for

material disposal, accomplishing the objectives of both biological and visual mitigation. Local native plant species (seeds and/or plants) shall be utilized to the extent possible. Seacliff buckwheat and Monterey Indian paintbrush shall be included within the prescribed restoration at specified sites. A monitoring plan will be prepared for each site. Restoration shall adhere to the following re-vegetation measures under the direction of the Caltrans Landscape Architecture Branch:

- a) As a first order of work in site preparation for disposal sites, native duff will be collected, stockpiled and protected from erosion until the site is filled. After finish grading is complete, duff will be reapplied over the entire site prior to replanting.
- b) Re-vegetation planting will be done seasonally to take advantage of weather and vegetative cycles.
- c) Weeding will be a key component to successful re-vegetation. Weeds and invasive species will be eradicated prior to re-vegetation of the site.
- d) Establish seed collection schedule.
- e) Soil test the sites; add amendments to soil if required.
- f) Planting will use native seeds and seedling plants. These materials, to the extent possible, will be locally collected and consist of species that are representative of the native plant community surrounding the affected area.
- g) Seedlings will be planted in specific locations and maintained for a period of 3 years, including irrigation, weeding and replacement as needed.
- h) All ground surfaces disturbed by disposal activities, including excavation areas, haul roads and temporary stockpiles will be treated with erosion control and re-vegetated, as appropriate.
- i) Along with maintaining seedlings for a period of 3 years, exotic invaders will be eradicated on an annual basis for at least three years following seeding/planting. During a 3-year plant establishment period, brief annual reports will be prepared for each treatment site, documenting progress on achieving the objectives of the re-vegetation effort. During annual inspections, a qualified individual will assess such elements as 1) plant composition, density and percent cover; 2) the condition of the plants; 3) signs of damage; 4) status of exotic vegetation; and, 5) status of species of special concern. When deficiencies are identified, appropriate remedial measures should be described and carried out prior to the next annual monitoring inspection.
- j) The goal of the re-vegetation program is 75% minimum coverage on applicable sites by the end of the 3-year period.

BIO-10: Every effort will be made for restoration of wetland and riparian habitat to occur on-site. However, it may be most appropriate to enhance the affected drainage up or downstream of the impacted location. Replacement ratios will be at a rate of 3:1, with three units replaced for every one impacted. Specific locations will be determined on a case-by-case basis in consultation with the property owners, the Army Corps of Engineers, Regional Water Quality Control Board, CA Coastal Commission, CA Department of Fish and Game and the

County of Monterey during the permit process. Monitoring and maintenance of restored wetland and riparian habitat will be conducted for a minimum of three years. The goal of the restoration program is 75% minimum coverage on applicable sites by the end of the 3-year period.

Site Specific Impacts & Mitigation Measures: Mitigation measures from the above list are recommended for each site as follows:

Willow Springs (P.M. 10.4)

Habitat loss: Total habitat loss is estimated at 1.85 acres. This figure includes 1.35 acres of Central Coast Scrub communities and 0.50 acres of Ruderal and bare soil areas.

Mitigation measures: BIO-1, 2, 3, 5, 6, and 9-including seacliff buckwheat in the seed mix.

Tree Bones (P.M. 11.0)

Habitat loss: This site includes 3.75 acres of Central Coast Scrub communities and 0.93 acres of Ruderal and bare soil areas, for a total of 4.68 acres of habitat loss.

Sensitive areas: On the east side of the seasonal pond is a community of seacliff buckwheat, and on the north side of the site is a seasonal pond covering 0.65 acres.

Mitigation measures: BIO-1, 2, 3, 5, 6, 9 & 10 (include seacliff buckwheat in the seed mix).

1983 Extension (P.M. 53.6)

Habitat loss: This site includes 1.0 acres of Central Coast Scrub communities, 0.15 acres of Arroyo Willow Riparian communities, 0.10 acres of Windrows, and 0.05 acres designated as Waters of the US. The total amount of habitat loss on this site would be 1.30 acres.

Mitigation measures: BIO-1, 2, 3, 4, 6, 7, 9 & 10.

Gurries (P.M. 63.0)

Habitat loss: This site includes 3.0 acres of Coastal Sage Scrub communities, and 1.19 acres of Ceanothus Scrub communities. The total amount of habitat loss on this site would be 4.19 acres.

Mitigation measures: BIO-1, 6, & 9.

Garrapata Sites #1, 3, & 6 (P.M. 63.6/67.0)

Habitat loss: Assuming all disturbance is contained within the eroded drainages, Coastal Bluff Scrub will be lost as follows: 0.1 acre at Site #1, 0.7 acres at #3, and

0.33 acres at Site #6. Collectively, this amounts to an impact of 0.50 acres of Coastal Bluff Scrub communities, 1.6 acres of Ruderal and bare soil areas, and 0.20 acres designated as Waters of the US, for a total of 2.3 acres of habitat loss.

Mitigation measures: BIO- 1, 2, 3, 5, 6, 7, 8, 9 (including seacliff buckwheat and Monterey Indian paintbrush in the seed mix) & 10.

- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

A permanent impact will be the loss of approximately 1.01 acres of jurisdictional waters of the United States. Wetlands and waterways are abundant within the project area. Activities associated with the proposed project may cause hydrological interruptions to these areas. Potential impacts were evaluated individually for each site and an application will be submitted to the Army Corp of Engineers for a Regional General Permit under Section 404 of the Clean Water Act.

Tree Bones (P.M. 11.0)

Waters of the U.S.: The site includes a seasonal pond covering approximately 0.65 acres, the pond provides a water source for area wildlife, but does not support habitat for any sensitive species (including the red-legged frog). The proposed project has been changed to avoid the seasonal pond and all wetland impacts.

1983 Extension (P.M. 53.6)

Waters of the U.S.: The site includes 0.05 acres of waters of the United States. The waters do not provide habitat for sensitive species.

Mitigation measure: BIO-10

Garrapata Sites #1, 3, & 6 (P.M. 63.6/67.0)

Waters of the U.S.: Sites #1 and 3 are generally within drainages, requiring extensions of culverts and impacts ranging from 0.03 acres to 0.10 acres of waters of the United States. Site #6 has a small area of freshwater wetland in a natural depression on the terrace (0.07 acres). None of the waters provide habitat for sensitive species.

Mitigation measure: BIO-10

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED:

Construction activities associated with the proposed project area are expected to result in temporary disturbance to wildlife occurring within the immediate project area. Various species that could be temporarily displaced or disturbed as a result of construction related noise and human presence include a variety of bird species and small mammals. Permanent impacts to habitat will also occur as a result of the project. Implementation of proposed mitigation measures will minimize temporary impacts to wildlife within the vicinity of the project. Potential impacts are summarized below:

Temporary Construction Impacts

- Diversion/dewatering of the stream channel during construction;
- Loss of native vegetation

Permanent Impacts

- Fill of Waters of the United States

Temporary habitat impacts are outlined above in Table 5.

- e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

NO IMPACT. Disposal at the proposed sites would not conflict with local policies or ordinances protecting specific biological resources.

- f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

NO IMPACT. There are no habitat conservation plans that would apply to the project.

C. SOCIAL and ECONOMIC

1. Aesthetics

Will the proposal either directly or indirectly:

- a) **Have a substantial adverse effect on a scenic vista?**
LESS THAN SIGNIFICANT IMPACT. There are no key views or scenic vistas which would be affected by use of any of the proposed disposal sites.
- b) **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**
NO IMPACT. There are no designated scenic resources that would be affected by the project.
- c) **Substantially degrade the existing visual character or quality of the site and its surroundings?**
LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.
Visual impacts from disposal activities in the Highway 1 viewshed are primarily associated with alterations of landform and exposure of bare ground. The latter is considered a temporary impact with successful revegetation and can also successfully mitigate for the change in landform. Therefore, suitability for revegetation becomes the primary criterion for evaluating the degree of visual impacts at each disposal.

At sites such as those at Garrapata State Park, severe erosion has degraded the site and hence the view. The disposal and subsequent revegetation may result in an overall improved appearance. Similarly, sites invaded with exotic weed species, could be improved with the disposal through burying weeds and planting native plants in their place.

Mitigation Measures:

VIS-1 (Revegetation, see also BIO-9): With successful re-vegetation efforts (see mitigation measures under Section B. Biological), the visual impacts from disposal can be mitigated to an insignificant level. Any trees removed should be replaced in the revegetation plan.

VIS-2 (Contour grading): To limit the appearance of creating mechanically altered terrain, sites shall be contour-graded to best conform to the natural topography.

VIS-3 (Access roads): Temporary access roads must be designed to minimize grading requirements; upon completing disposal activities at the site where access is no longer needed, the road must be completely restored with native vegetation.

Site Specific Impacts & Mitigation Measures:**Willow Springs (P.M. 10.4)**

Visual impact: Because the site is completely outside the Highway 1 viewshed, no visual impacts would occur.

Tree Bones (P.M. 11.0)

Visual impact: The disposal site is obscured from view except for construction of the proposed access road (egress) south of the site, although it will only be visible for a short distance to northbound travelers.

Mitigation measure: VIS-1, 2, 3

1983 Extension (P.M. 53.6)

Visual impact: Since the finish elevation will not exceed the horizontal plane of the adjacent marine terrace, material placement will be inconspicuous. Monterey cypress saplings growing in the gully will be affected.

Mitigation measure: VIS-1, 3 (include transplanting or replacement planting cypress with local-propagated seedlings).

Gurries (PM 63.0)

Visual impact: Several homes opposite the site on the west side of the highway have a partial view in the direction of the site.

Mitigation measures: VIS-2, construct fill below the line of sight of Route 1 and the nearby homes.

Garrapata Sites #1, 3, & 6 (PM 63.6/67.0)

All of these sites are on the ocean side of the highway and most are in eroded canyons or gullies where disposal material will be used to restore the slopes.

Site #1 (PM 66.4)

Visual Impacts: Since the existing condition is highly disturbed and the continuing erosion of the bank detracts from the viewshed, placing material against this eroded bank may arrest erosion and allow revegetation to improve the overall visual quality (Figure 5, visual simulation).

Site #3 (PM 65.3)

Visual Impacts: Traveler's view impacts are minimal because the gully is below the road grade and it is far enough from the edge of traveled way that the shoulder blocks views.

Site #6 (PM 67.0)

Visual Impacts: The visual impacts of disposal at this site are minimal, and again may improve the overall visual quality of the area by eliminating the erosion and weed problems and consolidating the parking areas.

Mitigation measures (Sites #1, 3, 6): VIS-1, 2.

- d) **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**
NO IMPACT. Not applicable.

2. Agricultural Resources

Will the proposal either directly or indirectly:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**
NO IMPACT. There are no farmlands that would be converted by the project.
- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**
NO IMPACT. The proposed project would not alter current land use patterns.

- c) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

NO IMPACT. The proposed project would not precipitate any changes in land use.

3. Cultural Resources

Will the proposal either directly or indirectly:

- a) **Cause a substantial adverse change in the significance of a historical resource as defined in PRC 15064.5?**

NO IMPACT. None of the proposed sites contain resources of historical value.

- b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to PRC 15064.5?**

LESS THAN SIGNIFICANT IMPACT WITH MITIGATION

INCORPORATED. No evidence of cultural resources, including pre-historic archaeological resources, have been located in the project area. However, there are cases where an unanticipated discovery is made during construction.

Mitigation measures:

CUL-1: In the case of an unanticipated discovery, provisions for proper evaluation and mitigation of the find must be followed. Work must be halted in the area of the find and the District Archaeologist contacted immediately to review the find and make recommendations for proper treatment. Work may not resume in the area until so directed by the Archaeologist.

- c) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

NO IMPACT. No unique geologic features or paleontological resources have been noted at any of the proposed disposal sites.

- d) **Disturb any human remains, including those interred outside of formal cemeteries?**

NO IMPACT. No evidence of cultural material, included burials, has been noted at any of the proposed disposal sites. Any unanticipated discovery would be subject to evaluation as stated above (CUL-1).

- e) **Restrict existing religious or sacred uses within the potential impact area?**

NO IMPACT. No evidence of cultural material, including those for religious or scared uses, has been noted at any of the proposed disposal sites. Any unanticipated discovery would be subject to evaluation as stated above (CUL-1).

4. Land Use and Planning

Will the proposal either directly or indirectly:

- a) **Physically divide an established community?**
NO IMPACT. To the extent that the project could minimize delays and road closures, it would minimize the potential for impacts to communities along the route.
- b) **Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?**
NO IMPACT. The proposed work will be subject to approval by Monterey County under their adopted Local Coastal Program (LCP) which will require a Coastal Development Permit. The project is not proposed in conflict with policies set forth in the LCP.
- c) **Conflict with any applicable habitat conservation plan or natural community conservation plan?**
NO IMPACT. There are no habitat conservation plans applicable to the proposed project.

5. Population and Housing

Will the proposal either directly or indirectly:

- a) **Induce substantial population growth in an area, either directly or indirectly?**
NO IMPACT. Not applicable.
- b) **Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**
NO IMPACT. Not applicable.
- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**
NO IMPACT. Not applicable.

6. Public Services

Will the proposal either directly or indirectly:

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need**

for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- i. **Fire protection?**
- ii. **Police protection?**
- iii. **Schools?**
NO IMPACT. The nature of the project would seek to minimize disruptions to these services or response times.
- iv. **Parks?**
LESS THAN SIGNIFICANT IMPACT. See response to 7b) below.
- v. **Other public facilities?**
NO IMPACT. No other public facilities would be affected.

7. Recreation

Will the proposal either directly or indirectly:

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**
NO IMPACT. Not applicable.
- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**
LESS THAN SIGNIFICANT IMPACT. The sites within Garrapata State Park must be carefully worked to be consistent with the recreational uses here. State Parks intent in allowing disposal here is to allow connection of missing links in the coastal trail system and has the added benefit of restoring degraded landforms. At Garrapata #6, an additional objective is to alter the parking in a manner that would eliminate one turnout (north end of the park), in exchange for expanding and connecting two existing turnouts to the south.

Mitigation measures:

REC-1 (Use accommodations): Each site must be contour-graded and allow for a bench on which a foot trail can be established. Garrapata 6 must be designed to accommodate parking needs (per State Parks).

8. Transportation/Traffic

Will the proposal either directly or indirectly:

- a) **Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?**
LESS THAN SIGNIFICANT IMPACT. Operation of heavy equipment and hauling material from the source to various disposal sites creates additional truck traffic. The impacts from any one event would depend on the volume of material to be moved and the length of the haul distance. Introducing truck traffic outside the project limits (such as hauling to the Monterey Peninsula) could add to already congested areas, such as through Carmel. The project, however, proposes to locate and pre-approve disposal sites within the areas of the greatest need. In this manner, the project would reduce adverse impacts to the roadway outside the project area.
- b) **Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**
NO IMPACT. The only traffic impacts would be temporary associated with construction (above); levels of service would not be altered.
- c) **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**
NO IMPACT. Not applicable
- d) **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**
NO IMPACT. The project would not result in changes to basic roadway design.
- e) **Result in inadequate emergency access?**
NO IMPACT. The project would facilitate emergency access to the extent that it seeks to restore service and minimize disruptions. Construction activity would be staged so as not to preclude emergency access even on a short-term basis.
- f) **Result in inadequate parking capacity?**
NO IMPACT. See discussion #7 Recreation, above.
- g) **Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**
NO IMPACT. Not applicable.

9. Utilities and Service Systems

Will the proposal either directly or indirectly:

- a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**
NO IMPACT. Not applicable.
- b) **Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**
NO IMPACT. Not applicable.
- c) **Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**
NO IMPACT. Please refer to discussion under Hydrology and Water Quality, #4 above.
- d) **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**
NO IMPACT. Not applicable.
- e) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**
NO IMPACT. Not applicable.
- f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**
NO IMPACT. The project seeks to avoid reliance on other existing landfills, which may have undetermined capacity to accept landslide material.
- g) **Comply with federal, state, and local statutes and regulations related to solid waste?**
NO IMPACT. The disposal of landslide material is not considered solid waste and would not be subject to such regulations.

D. Mandatory Findings of Significance

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered**

plants or animals, or eliminate important examples of the major periods of California history or prehistory?

The project would not significantly degrade the quality of the environment or cause significant reductions in any native or sensitive habitats or species populations in the project area. All potential impacts which have not been avoided with special measures are localized and mitigated to a level where significant impacts could not result.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

The project aims to address the ongoing need for disposal, which is a certainty given that Highway 1 lies within an area of high geologic activity. The effects of the proposal primarily show impacts to native habitats, as the current approach considers only upland (terrestrial) sites. Through the planning effort with the Coast Highway Management Plan, further evaluation will be made for alternative methods of disposal. Through that effort, alternatives may be identified to reduce the overall cumulative impacts of disposal activities along the coast.

- c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?**

The project would not have substantial impacts on human beings. A desired outcome of the project is to facilitate access along Highway 1 as a result of storm events.

VII. Mitigation Summary, Monitoring, and Reporting Plan

The following is a summary of the mitigation measures and proposed monitoring/reporting that will be incorporated into the design to minimize project impacts:

Soil Erosion Mitigation

ER/SED-1: Disposal sites would be constructed and managed to minimize erosion; work at each site would employ one or more of the following measures:

Finished surface areas (slope flatter than 2:1):

- Compact soil
- Apply straw
- Apply soil amendment
- Spread seed
- Add stabilizing emulsion

Finished slopes (slopes 2:1 or steeper):

- Compact soil
- Incorporate slope stabilizers (geogrid fabrics)
- Apply straw
- Place erosion control mat or blanket
- Apply stabilizing emulsion
- Install biomechanical stabilizers (fiber rolls, straw bales)
- Hydroseed

ER/SED-2: Where nearby waterways could be affected by disposal activities, water pollution prevention measures shall be incorporated; they may include, but not be limited to placement of straw bales or fabric siltation barriers.

Monitoring and Reporting: The Project Resident Engineer (RE) is responsible for ensuring that the Contractor prepares a Water Pollution Control Plan and to enforce implementation of that plan to ensure control of short term erosion and sedimentation, by source control and treatment during construction activities. The Water Pollution Control Plan will be available for review by RWQCB and Monterey County Planning and Building. The RE will also be responsible for ensuring compliance with all erosion control measures in his daily diaries. These diaries will be summarized in a Final Mitigation Monitoring Plan Report which will be submitted to the Resource Agency.

NOI-1: Operations at the Willow Springs disposal site would be limited to daytime hours.

BIO-1 (Limit Disturbance): Clearly mark site boundaries with stakes prior to construction to avoid unnecessary disturbance of existing vegetation.

BIO-2 (Duff Collection): For sites predominantly vegetated with native plants, native duff will be collected and stored for later use. This will occur as a first order of work in site preparation. The material must be stockpiled in a manner where it is protected from erosion until finish grading is complete and the material can be applied prior to re-vegetation. The objective is to retain as much of the naturally occurring material as possible for re-application on the site, and limit the amount of imported material required (for topsoil and mulch).

BIO-3 (Environmentally Sensitive Areas-ESAs): Avoid disturbance of sensitive habitat areas, such as riparian vegetation, emergent wetland areas, and populations of seaciff buckwheat. Establish Environmentally Sensitive Areas (ESA) including placement of temporary fencing (such as orange construction fence) identifying the ESA as off-limits so as to prevent inadvertent impacts during construction.

BIO-4 (Minimize Riparian Impacts): Where impacts cannot be avoided to riparian vegetation, such as willows, removal or trimming shall be controlled, to minimize the disturbance and by cutting stems at the base to allow for natural re-sprouting.

BIO-5 (Buckwheat): For sites near potential Smith's blue butterfly habitat (i.e., a population of seaciff buckwheat), a Caltrans biologist shall direct the establishment of an Environmentally Sensitive Area (ESA) in the field (such as orange fencing) between the work area and the potential habitat area. In addition, any seaciff buckwheat plants within the boundaries of a disposal area shall be cut at the base, the duff below collected, and the plant and duff placed in and under a nearby plant.

BIO-6 (ER/SED-1): Implement erosion control measures during construction. Install silt fencing and barriers immediately downstream of and around disposal sites. Installation and maintenance of silt fencing and barriers should follow Caltrans Best Management Practices.

BIO-7 (ER/SED-2): Creek diversion outlets should discharge into silt fence barriers to reduce sedimentation in the water column. Water passing through the last silt fence, barrier, or filter should be clean with no distinguishable suspended sediments.

BIO-8 (Stream Diversion-Intake): Diversions requiring pumping should have pump intakes fitted with appropriately sized mesh screen to avoid the intake of aquatic vertebrate species.

BIO-9 (Revegetation): All disturbed areas will be treated for erosion control and ultimately re-vegetation. Re-vegetation is the main method of mitigating for material disposal, accomplishing the objectives of both biological and visual mitigation. Native local native plant species (seeds and/or plants) shall be utilized to the extent possible. Seaciff buckwheat and Monterey Indian paintbrush shall be included within the prescribed restoration at specified sites. A monitoring plan will be prepared for each site. Restoration shall adhere to the following re-vegetation measures under the direction of the Caltrans Landscape Architecture Branch:

- a) As a first order of work in site preparation for disposal sites, native duff will be collected, stockpiled and protected from erosion until the site is filled. After finish grading is complete, duff will be reapplied over the entire site prior to replanting.

- b) Re-vegetation planting will be done seasonally to take advantage of weather and
- c) vegetative cycles.
- d) Weeding will be the key component to successful re-vegetation. Weeds and invasive species will be eradicated prior to re-vegetation of the site.
- e) Establish seed collection schedule.
- f) Soil test the sites; add amendments to soil if required.
- g) Planting will strive to use native seeds and seedling plants gathered from the immediate area, whenever possible consisting of species that are representative of the native plant community surrounding the affected area.
- h) Seedlings will be planted in specific locations and maintained for a period of 3 years, including irrigation, weeding and replacement as needed.
- i) All ground surfaces disturbed by disposal activities, including excavation areas, haul roads and temporary stockpiles will be treated with erosion control and re-vegetated, as appropriate.
- j) Along with maintaining seedlings for a period of 3 years, exotic invaders will be eradicated on an annual basis for at least three years following seeding/planting. During a 3-year plant establishment period, brief annual reports will be prepared for each treatment site, documenting progress on achieving the objectives of the re-vegetation effort. During annual inspections, a qualified individual will assess such elements as 1) plant composition, density and percent cover; 2) the condition of the plants; 3) signs of damage; 4) status of exotic vegetation; and, 5) status of species of special concern. When deficiencies are identified, appropriate remedial measures should be described and carried out prior to the next annual monitoring inspection.
- k) The goal of the re-vegetation program is 75% minimum coverage on applicable sites by the end of the 3-year period.

BIO-10: Every effort will be made for restoration of wetland and riparian habitat to occur on-site. However, it may be most appropriate to enhance the affected drainage up or downstream of the impacted location. Replacement ratios will be at a rate of 3:1, with three units replaced for every one impacted. Specific locations will be determined on a case-by-case basis in consultation with the property owners, the Army Corps of Engineers, Regional Water Quality Control Board, CA Coastal Commission, CA Department of Fish and Game and the County of Monterey during the permit process. Monitoring and maintenance of restored wetland and riparian habitat will be conducted for a minimum of three years. The goal of the restoration program is 75% minimum coverage on applicable sites by the end of the 3-year period.

VIS-1 (Re-vegetation, see also BIO-9): With successful re-vegetation efforts (see mitigation measures under Section B. Biological), the visual impacts from disposal can be mitigated to an insignificant level. Any trees removed should be replaced in the re-vegetation plan.

VIS-2 (Contour grading): To limit the appearance of creating mechanically altered terrain, sites shall be contour-graded to best conform to the natural topography.

VIS-3 (Access roads): Temporary access roads must be designed to minimize grading requirements; upon completing disposal activities at the site where access is no longer needed, the road must be completely restored with native vegetation.

CUL-1: In the case of an unanticipated discovery, provisions for proper evaluation and mitigation of the find must be followed. Work must be halted in the area of the find and the District Archaeologist contacted immediately to review the find and make recommendations for proper treatment. Work may not resume in the area until so directed by the Archaeologist.

REC-1 (Use accommodations): Each site must be contour-graded and allow for a bench on which a foot trail can be established. Garrapata 6 must be designed to accommodate parking needs (per State Parks).

Monitoring and Reporting: The Project Resident Engineer (RE) is responsible for ensuring compliance with the project plans and specifications for grading and re-vegetation efforts. Wetland restoration will be the responsibility of Caltrans Environmental Planning Staff. A three-year re-vegetation monitoring period for each site will be the responsibility the project RE for the first year, and Caltrans Environmental Planning and Landscape Architecture Staff for the additional two years. The RE will note compliance with re-vegetation measures in his daily diaries. These diaries will be summarized in a Final Mitigation Monitoring Plan Report which will be submitted to the Resource Agency.

VIII. Permits Required

A. Permits & Approvals Required--Traditional

For the proposed project, individual disposal sites are subject to traditional permitting processes, as follows:

California Coastal Act/Monterey County LCP

All of the recommended sites will require a Coastal Development Permit from Monterey County.

California Fish & Game Code Clean Water Act

From the list of recommended sites, the following will require 1601 Agreements from the CA DFG and 404/401 permits from the Army Corps of Engineers and the Regional Water Quality Control Board:

- 1983 Extension
- Gurries
- Garrapata (#1, 3, & 6)

Marine Sanctuaries Act

Consultation with the Monterey Bay National Marine Sanctuary will occur for the following sites:

- Garrapata (#1, 3, & 6)

State & Federal Endangered Species Acts

Informal consultation is required for potential impacts to the Smith's Blue Butterfly habitat for the following sites:

- Willow Springs
- Garrapata (#1, 3, & 6)

B. Streamlining under the Coast Highway Management Plan

One of the expected outcomes of the Coast Highway Management Plan is a streamlined process for approving and permitting disposal sites. The CHMP will function in part as a Public Works Plan under the Coastal Act, where described activities are consented to through the plan and so long as they are carried out in a compliant manner, are not subject to a separate permit process. Similarly, it is hoped that programmatic type agreements can be fostered with the various agencies using the CHMP as a basis. (See also Section I. G. Relationship to the CHMP.)

IX. List of Preparers

Charles Cesena is an Associate Environmental Planner (Natural Sciences) with 20 years experience preparing environmental documents, Natural Environment Studies, Biological Assessments for endangered species, Restoration Plans and obtaining permits from resource agencies. B.A. Environmental Studies (emphases biology and anthropology), UC Santa Barbara.

John Duffy is a Senior Engineering Geologist with 23 years experience performing engineering geologic studies, and providing construction oversight; specializes in rockfall and rock avalanche hazard analysis and mitigation. B.S. Geology, James Madison University, Harrisonburg, Virginia. B.S. Geological Engineering, University of Nevada-Reno.

Zeke Dellamas is a Transportation Engineer (Civil), District Storm Damage Coordinator, 6 years experience with project development including Hydraulics analysis, design and construction. B.S. Civil Engineering, Cal Poly San Luis Obispo.

Tom Edell is an Associate Environmental Planner - Natural Sciences, 3 years experience preparing Natural Environment Surveys and Biological Assessments, 20 years experience conducting field surveys (primarily birds and marine invertebrates). B.S. Natural Resource Management, Fish and Wildlife Management concentration, Cal Poly San Luis Obispo.

Lance Gorman is a Transportation Engineer (Civil) with 13 years experience working in project development and construction, with special expertise in Hydraulics design. B.S. Civil Engineering, Cal Poly San Luis Obispo.

Steve Hendrickson is a Transportation Engineer (Civil) with 14 years of experience in the planning, design, construction and maintenance of public works projects. He has expertise in hydraulics with both the Department of Water Resources and Caltrans. B.S. Agricultural Engineering Cal Poly San Luis Obispo.

Terry Joslin is an Archaeologist with 9 years California prehistory and history fieldwork and document preparation, B.S. Anthropology/Geography, Cal Poly San Luis Obispo.

Mike Krueger is a Transportation Engineer (Civil) with 11 years experience preparing plans, project reports and overseeing construction activity. B.S. Civil Engineering, Cal Poly San Luis Obispo.

Randy LaVack is an Associate Environmental Planner with 10 years experience in air quality impact analysis, project environmental review, and interagency coordination. B.A. Geography, UCSB, M.C.R.P. City and Regional Planning, Cal Poly San Luis Obispo.

Aileen K. Loe is a Senior Environmental Planner with 14 years experience in project environmental review, compliance, interagency coordination and permitting. B.S. Natural Resources Management, Cal Poly San Luis Obispo.

Valerie Levulett is the District Archaeologist and Native American Coordinator with 30 years experience in cultural resource studies, conducting field investigations and data collection, specializes in California Prehistory. M.A., Ph.D. Anthropology, University of California , Davis

Sarah Miller is a Student Assistant currently attending Cal Poly, San Luis Obispo pursuing a Bachelor of Science degree in Forestry and Natural Resources Management. Sarah is experienced with Geographic Information Systems and assisting with environmental analysis and documentation.

Wayne Mills is a Transportation Engineer (Civil) with 16 years experience preparing Air, Noise and Water Quality studies, 4 years experience assisting with Archaeological field analysis and data collection. District Soundwall coordinator, District Paleontology coordinator. B.A. Social Science, San Diego State University, B.A. Earth Science, Cal State University Fullerton.

Bryan Parker Associate Landscape Architect, with 11 years experience preparing Plans, Specifications and Estimates for highway planting, landscape projects and performing visual analysis for highway projects. B.S. Landscape Architecture, Cal Poly San Luis Obispo.

Robert C. Pavlik Associate Environmental Planner/Historian with 7 years experience performing historic resource evaluations and writing environmental documents; 14 years experience with state and national parks as an interpreter and historian. M.A. History, University of California Santa Barbara.

Ron Richman Senior Materials and Research Engineer, 17 years experience in geotechnical engineering and engineering geology for transportation facilities. B.S. Geology, M.S. Engineering.

Gary L. Ruggerone is a Senior Environmental Planner with 22 years experience in project environmental review, compliance, interagency coordination and permitting. B.S. Biological Sciences, Cal Poly Pomona; M.A. Population/Aquatic Biology, University of California at Santa Barbara.

Ed Schefter Environmental GIS Coordinator (GPS/GIS Integration) with 16 years surveying experience in field & office surveys, 3 years GIS experience in application & program development. B.S. Survey Engineering and Land Surveyor Registration.

Lisa Schicker, Environmental and Biological Monitor for the Big Sur Coast, District Arborist, with 20 years of environmental planning experience. B.S. Biology; M.L.A. Landscape Architecture.

X. Responses to Comments

A. Introduction

This section provides responses to comments submitted to Caltrans by public agencies and individuals during the public comment period.

Copies of the written comment letters are provided in Appendix A. Each letter and e-mail message received has been identified by an abbreviated name (e.g. MBNMS, Norman, etc.) The comment letters received are arranged in sequence by the name of the agency or individual submitting the comment. Letters are grouped together by government agency, public interest groups, and members of the public. Comments requiring specific responses are numbered (e.g. - 1, -2, -3, etc.), and are referred to by the combined abbreviated author name and number coding in the response section (e.g. SCH-1, Norman-2, etc.).

B. Index to Responses by Comment Author

The comments submitted on the Initial Study are listed and indexed in this section. The comments are indexed below to indicate the abbreviated name each has been assigned.

SCH	Governor's Office of Planning & Research - State Clearinghouse Terry Roberts, Senior Planner January 19, 2000
MBNMS	Monterey Bay National Marine Sanctuary William J. Douros, Superintendent February 18, 2000
USFS	United States Forest Service Jeff Kwasny, for Bruce Emmens, District Ranger February 2, 2000
ACOE	United States Army Corps of Engineers Calvin Fong, Chief, Regulatory Branch January 13, 2000
RWQCB	California Regional Water Quality Control Board Roger Briggs, Executive Officer, Central Coast Region February 14, 2000
DPR	California Department of Parks and Recreation Thomas K. Moss, Resource Ecologist, Monterey District February 23, 2000

CDFG	California Department of Fish and Game Brian Hunter, Regional Manager, Central Coast Region January 10, 2000
MONCO	Monterey County Planning and Building Department Wanda A. Hickman, Associate Planner January 31, 2000
RCMP	Responsible Consumers of the Monterey Peninsula David Dilworth, Co-Chair February 11, 2000
CW	Coast Watch Peggy Taylor, Tim Green January 26 & February 3, 2000
Norman	Jeff Norman, February 10, 2000
Woyt	Barbara Woyt, February 10, 2000
Wright	Ken Wright, February 8, 2000
Thangaraj	Rita Thangaraj, February 11, 2000
Ravich	Richard Ravich, February 11, 2000
Chappellet	Lygia Chappellet, January 27, 2000
Toren	Magnus Toren, January 27, 2000
Bloomfield	Erin Bloomfield, January 11, 2000
Andres	Kaye Andres, January 28, 2000
Blum	Mark A. Blum, January 27, 2000
Gurries	Ronald J. Gurries, January 26, 2000
Diehl	Martha Diehl and Kenneth Ekelund, February 10, 2000

C. Responses to Comments**Comment SCH-1**

...This letter acknowledges that you have complied with the State Clearinghouse requirements for draft environmental documents pursuant to CEQA.

Response

Comment acknowledged.

Comment MBNMS-1

The Initial Study, and thus the ensuing environmental document, needs to be clear that the disposal plans at the nine proposed sites is just a first step at developing and using onshore disposal sites.

Response

This Initial Study (IS) focuses on the short-term need to locate disposal sites in advance of landslides and other storm damage-related events. The IS also focuses on sites that are currently held to be the least environmentally-damaging and can therefore be evaluated and approved in the shortest period of time for use in the near future. Other disposal strategies for future use will be identified and evaluated as part of the Coast Highway Management Plan (CHMP).

Comment MBNMS-2

The CHMP will, or at least should, provide a more creative, whole-project view towards reducing the need for material disposal and developing further onshore sites that may need more mitigation, planning, and perhaps cost. Nonetheless, our comments below suggest additional work could be done at this stage to expand the present nine disposal sites. If we have misunderstood what the CHMP will be accomplishing, and its relationship to the nine sites, please inform us promptly.

Response

The CHMP will include evaluation of variable strategies for landslide repair. However, while in the process of developing scientific research, the on-going need for disposal sites is indisputable. Please refer to Chapter II, Section C, “Alternatives Still Under Consideration,” for additional information.

Caltrans’ primary consideration for decisions related to landslide repairs in this area is the time it takes to restore traffic (also referred to as “time to opening”). While cost is certainly a factor (as the highway is operated 100% with public funds), it is not usually the determining factor. The single most important factor influencing

the time to opening is the handling of landslide material. The most expeditious response occurs if material can be handled once and handled on-site. Operations involving excavation and hauling off-site result in longer construction times and higher costs which increase exponentially with total volumes, the number of times material requires handling (e.g. hauling to a temporary holding area prior to transfer to long-term or “stable” storage) and haul distances.

Depending on individual site circumstances, the impacts of handling material on-site will vary. For landslides occurring on slopes immediately above the shoreline, handling material on-site would equate to ocean disposal in that material would be mechanically moved down slope toward the shoreline.

Besides influencing time in construction, hauling material off-site (transporting to upland sites) has its own set of impacts associated with the burial of terrestrial habitats, as well as impacts to traffic, the roadway itself and air quality (associated with the hauling operation). Please refer to Chapter I, Section G, for additional information regarding the challenges responding to storm damage events.

Comment MBNMS-3

On page 16 of the Initial Study, ocean disposal is discussed as an alternative still under consideration. In this paragraph, the Sanctuary’s regulations are described incorrectly. The paragraph should be rewritten as follows, with edits shown by strike-through and underline:

“Disposing of material in the ocean, or placed above the shoreline but in a manner where it would subsequently enter the ocean, is regulated by the National Marine Sanctuaries Act. ~~Disposal may be authorized by the Monterey Bay National Marine Sanctuary where the activity can be shown to be consistent with natural coastal processes.~~ Disposal is strictly prohibited by the regulations for the Monterey Bay National Marine Sanctuary. A process exists whereby the Sanctuary may consider a regulatory change. The information necessary for that process includes scientific analysis that evaluates if the disposal of sediment is consistent with natural coastal processes at specific sites, and that shows sediment disposal will have only negligible short-term adverse effects on Sanctuary resources and qualities. ~~Evaluating this properly will involve interagency analysis of the natural sediment regime and site specific conditions along the Big Sur coast.~~ This effort will be conducted as an element of the Coast Highway Management Plan.”

Response

The section referred to above has been modified. Please refer to page 19 of this document for more information. Although Caltrans respectfully disagrees with this interpretation of the regulations implementing the Marine Sanctuaries Act, Caltrans continues to coordinate with the MBNMS, to work toward mutually

agreeable solutions to Storm Damage repair activities, and will seek authorization for any activities that could result in ocean disposal.

Comment MBNMS-4

The study has identified nine site recommendations for the disposal of sediment. On page 14, and in Table 4 on page 15, CalTrans describes some of the sites not selected for disposal at this time. We ask that you put additional work into those sites, in order to provide additional disposal capacity.

Response

Please refer to response to comment MBNMS-1. Work is on-going to identify additional disposal sites. This IS focuses on sites that represent the least environmentally-damaging and feasible alternatives available in the short-term.

Comment MBNMS-5

In particular, the description of Coffeeberry Flats suggests that you need to do some archaeological work, and perhaps consultation with Native Americans. Typically, the most preferred mitigation measure to coastal cultural sites is to cap them and not disturb them. That is exactly what the disposal program would do. Therefore, the Coffeeberry site could be used, and thus evaluated, in this environmental document.

Response

The preferred mitigation measure for impacts to cultural resource sites is avoidance. The proposed project has done this by removing the Coffeeberry Flats site from consideration. Capping the site would require lengthy consultation under Section 106 of the National Historic Preservation Act. In addition, potentially significant visual and biological issues contributed to the decision to remove Coffeeberry Flats from consideration: the site lies within the critical viewshed of Highway 1, and consists primarily of undisturbed coastal sage habitat. The preference is to use sites that have been previously disturbed, are outside the critical viewshed, and do not contain sensitive resources such as intact cultural sites.

Comment MBNMS-6

Furthermore, it is not at all clear why all of the U.S. Forest Service sites were not considered further. The Forest Service proposed the sites, and as a resource management agency and land steward, their proposal for use of those sites ought to be considered more fully.

Response

As stated previously, this Initial Study focuses on sites that represent the least environmentally-damaging and feasible alternatives available in the short-term.

The Forest Service (FS) made suggestions on sites based on Caltrans' initial inquiry and request for potential sites. Sites on FS property were also suggested by Caltrans Maintenance crews based on proximity to chronic problem areas (or areas where soil and rock is generated on a regular basis). Criteria for choosing sites to be evaluated further did not take into account whether the sites were in public or private ownership. It is not apparent that the FS suggested sites according to future plans for the area (although potential future uses are being considered for at least one of the sites: Tree Bones). FS and Maintenance suggestions for FS lands were based primarily on practical site conditions and in an effort to cooperatively locate suitable sites.

Comment MBNMS-7

Please list all four Garrapata sites for consultation with the Sanctuary, including site #5.

Response

Garrapata #5 has been removed from the proposed project.

Comment MBNMS-8

Additionally, regarding Garrapata site #5, Sanctuary staff conducted site visits on February 15, 2000, and noted that the fill Caltrans placed on the lower, most westerly slope, without Sanctuary authorization and adjacent to the beach, is cracked and eroding into the Sanctuary, and that very little vegetation exists on this slope. This erosion has occurred in less than six months and suggests that CalTrans' current plans for compaction, erosion control, and vegetation are not successful. Since it appears that you will be relying on these methods as mitigation measures (ER/SED-1; BIO-6; BIO-9), impacts may not, in fact, be reduced to insignificant with these measures.

Response

During and immediately following heavy rainfall events in February, 2000, the Garrapata #5 site, which had been placed with material from the 1999 Hurricane Point slide, experienced sloughing of the fill face. It is unreasonable to expect no erosion from the face of any slope during heavy rainfall. The existing natural slopes in this area would certainly have also shown erosion during these same rainfall events, if monitored. However, the erosion experienced at this site was more than should be expected, and remedial work will be performed in coordination with State Parks.

Comment MBNMS-9

Another disposal site that may need Sanctuary consultation is the 1983 Extension at post mile mark 53.6... Please provide us with further details on this site, such as its proximity to the Sanctuary's boundaries, and whether disposed sediment has the potential to enter the Sanctuary indirectly.

Response

This site has a very low potential for fill material placed to enter the MBNMS boundary. The fill material placed in 1983 is stable. A similar result should be expected by extending the limits. The distance from the end of the proposed fill to the MBNMS boundary is approximately 700 feet.

Comment MBNMS-10

On page 17, the section on selection and use of a pre-approved disposal site states that Caltrans will provide agency notification when a site is to be used and that no subsequent action or approval will be required, unless there is a "substantive" change in circumstances. "Substantive" must be clearly defined.

Response

The language in the paragraph has been revised to: "...no subsequent action or approval would be required, unless there is ~~was~~ a substantive change in circumstances, such as new information resulting in potentially significant environmental impacts.

Comment MBNMS-11

Also regarding the section on monitoring, the study states "remedial measures will be outlined for cases where desired objectives are not met." Mitigation for environmental damage as a result of CalTrans' error must be discussed here. Additionally, each site needs a detailed description of compaction, erosion control and re-vegetation methods.

Response

The objective is to place material for stability. The specific details of compaction, erosion control, and revegetation are site specific. Success of these measures for each site must be monitored for their effectiveness in the field. Should specific techniques or measures implemented in the field fall short of meeting expectations, remedial work must be performed. This type of quality-assurance must be done on a case-by-case basis since each situation has a unique set of conditions and circumstances.

Comment MBNMS-12

...the limited capacity the proposed sites allow points to the need for Caltrans to develop long-term engineering solutions to minimize road repair and reconstruction, such as the development of criteria for replacing roads with bridges at re-occurring wash-out areas, and constructing tunnels in place of road cuts.

Response

One established principle is that, following an event where damage affects essential function of the roadway, Caltrans is duty-bound to respond effectively and efficiently to restore the roadway to a safe and reliable condition. Dealing with underlying instabilities of the geologic conditions on the coast, landslides are a natural phenomenon that with certainty do and will occur, even if we cannot predict when or where they will occur. Engineering solutions have only a limited ability to alter the occurrence of landslides. While more information about the geology of the coast is being developed as part of the Coast Highway Management Plan, Caltrans must still be responsible for making arrangements to handle events that will most certainly occur on some scale and within some finite period of time. It is critically important that Caltrans plan for these events with the information available today, as well as seek better information that will improve planning for the future.

Comment USFS-1

At this time I will limit my comments to the two proposed sites on National Forest Service lands located within the Willow Springs Maintenance Area, Willow Springs (P.M. 10.4) and Treebone (P.M.11.0)... Current policy and management direction is not to authorize the construction of new roads. I urge you to develop other alternatives that accommodate your access needs.

Response

It will not be necessary to construct any new roadways on USFS property for the Willow Springs or TreeBones sites. Minor widening of the roadway at Willow Springs and the addition of pullouts to the TreeBones site access road will be required. All weather paving of the roadways is proposed because use of these sites will be needed during wet weather. Removal of all improvements once the site is no longer needed could be part of the project if required.

Comment USFS-2

Your revegetation plan on the disposal sites is the first step in preventing establishment of new infestations. As a second step, and to further mitigate the site disturbance, the Forest Service recommends a 500 foot wide “weed free” buffer zone around the perimeter of the disposal site. This weed free zone would help prevent adjoining invasive weeds from spreading onto the disposal site and also help mitigate loss of threatened or endangered species habitat.

Response

Comments acknowledged. Caltrans has committed to maintaining and monitoring the sites for three years. Part of the maintenance will be to exclude noxious weeds from the site, thus maintaining a 500-foot buffer is not necessary to keep the disposal sites weed-free.

Comment ACOE-1

According to the information provided, it appears that disposal at Willow Springs, Pt. Sur Naval Facility, and Garrapata #5 sites will not place dredged or fill material within a Water of the United States. Therefore, disposal of material at these locations is preferred over the use of the Tree Bone, Gurries, and Garrapata #1,3,and 6 sites.

Response

Comment acknowledged.

Comment ACOE-2

It is unclear from the information provided, how the use of the 1983 Extension site would impact jurisdictional waters. Page 25 of the study states that the site contains an eroded gully and seasonal wetlands. However, this site is not on a list of sites requiring 404 permits (page 65). Does this mean that all material disposed at this site shall be placed in uplands? We request that you clarify this before submittal of a permit application.

Response

The 1983 extension does contain seasonal wetlands and should have been included on the list of sites covered by the California Fish and Game Code and the Clean Water Act.

Section VII, “Permits Required,” has been revised to include 1983 Extension on the list of sites that would require 404/401 permits from the Army Corps of Engineers and the Regional Water Quality Control Board.

Comment RWQCB-1

The project’s “Purpose and Need” is “...to designate disposal sites for soil and debris generated by naturally occurring events, such as landslides allowing for the continued safe operation [and] maintenance of Highway 1 in the coastal area of Big Sur.” The highway and its maintenance undoubtedly exacerbates erosion and landslides. Caltrans will likely dispose of more soils than would otherwise occur naturally. The initial study and proposed negative declaration did not appear to accurately describe the environmental setting.

Response

Highway 1 has been present for over 60 years on the Big Sur coast. There is no doubt that if the highway was not present, Caltrans would not be disposing of any material. An argument could be made that during its initial construction and for several years (or even decades) after that erosion and landslides were exacerbated by its construction. After over 60 years it is more arguable that the roadway is now part of the natural condition and that any erosion and landslides not attributable to recent construction or modified maintenance practices are natural. Regardless of the material being designated natural or man caused it still requires removal of the material and disposal in the most beneficial and least impacting manner.

However, the Purpose and Need section of the Initial Study has been clarified to reflect that the disposal sites will be used only for material directly generated by landslides, and for the soil material generated as a result of a landslide-related repair.

Comment RWQCB-2

Some aspects of the project would result in a permanent loss of a surface drainage way and any attendant riparian features. The proposed mitigation BIO-10 lacks sufficient detail to assure proper mitigation. BIO-10 proposes to restore losses at unidentified nearby or offsite locations at an undetermined ratio. It is not clear that such restoration opportunities are available. During the CEQA process existing wetland sites need to be characterized, potential restoration sites should be identified and characterized, restoration ratios should be established base on size and value, and monitoring and maintenance schedules should be established.

Response

Mitigation measure BIO-10 has been revised to read:

“BIO-10: Every effort will be made for restoration of wetland and riparian habitat to occur on-site. However, it may be most appropriate to enhance the affected drainage up or downstream of the impacted location. Replacement ratios will be at a rate of 3:1, with three units replaced for every one impacted. Specific locations will be determined on a case-by-case basis in consultation with the property owners, the Army Corps of Engineers, Regional Water Quality Control Board, CA Coastal Commission, CA Department of Fish and Game and the County of Monterey during the permit process. Monitoring and maintenance of restored wetland and riparian habitat will be conducted for a minimum of three years. Monitoring and maintenance of restored wetland and riparian habitat will be conducted for a minimum of three years. The goal of the restoration program is 75% minimum coverage on applicable sites by the end of the 3-year period.”

Comment RWQCB-3

The Initial Study proposes, in part, to place culverts into gullies then fill over the culverts. The culverts will accommodate 50-year storms. The mitigation measures do not discuss the maintenance and monitoring of the culverts. The culverts are likely to receive soil, rock, and debris that may cause clogging. Any clogging of the culverts could erode the fill and impact downstream waters. The draft Negative Declaration should address the maintenance, such as the cleaning and unclogging of the culverts, as well as address the development of a monitoring program for the culverts. If the culverts were to clog, water should be diverted around the fill site as recommended Marine Disposal Booklet. Should fill materials erode, the draft Negative Declaration should discuss downstream effects. The fill sites should not be above sensitive areas.

Response

The culverts proposed in this document will normally be designed for accommodating a 100-year rainfall event. The ability for these culverts to accommodate debris flow will be a factor in the design. Appropriate clogging factors, redundant inlets and design that allows maintainability of the watercourse and inlet will all be incorporated into the design.

The 1983 Extension site (P.M. 53.6) is the location where these comments are most applicable and the maintenance most difficult to meet these concerns. At this site, we will either eliminate the culvert completely keeping the flow open channel and adding rock slope protection to prevent erosion at the end, or use a culvert and open channel system that will prevent the erosion problems mentioned. The property owners' and the regulatory agencies' (ACOE, DFG) preference will determine which of the two methods will be designed.

Comment DPR-1

Page 13 under Pt. Sur Naval Facility please change sentence (underlined words) to read: "State Parks proposes earthen berms to shield two existing buildings from the..." Also, under Proposed use, we have no restriction on the type of material disposed there, except that it should not contain significant amounts of rocks, boulders, or construction debris or highway waste materials. Native soil with or without organic material is fine.

Response

The sentence has been revised. Please refer to page 17, "Alternative Sites."

Comment DPR-2

Last sentence on page 13, please change sentence to read: "Each of these sites was proposed by State Parks to repair areas degraded by human-caused erosion and to provide overall..."

Response

The sentence has been revised. Please refer to page 14.

Comment DPR-3

...it is in State Parks interest to increase the amount of material proposed for disposal in each of the identified disposal sites located in Garrapata, specifically at Garrapata #1 and #3... please increase the capacities of Garrapata #1 and 3 to 15,000 cubic yards each

Response

Preliminary engineering estimates indicate the capacity of Garrapata #1 to be 1,300 cubic yards, and Garrapata #3 to be 2,600 cubic yards. More precise quantity estimates will be available when the sites are surveyed.

Comment DPR-4

Page 14. We believe that Garrapata #4 should be reconsidered as a suitable disposal site.

Response

All sites listed in Table 4 remain under consideration for longer-term disposal. The nine sites proposed in the Initial Study were perceived to be the least environmentally impacting and had the greatest potential for approval.

Comment DPR-5

Page 14. We probably should remove Garrapata #5 as a site for additional fill disposal... there is probably not enough space remaining to justify disturbing the area again.

Response

Garrapata #5 has been removed from the proposed project description. The site is currently being repaired and revegetated. Additional material is not proposed for placement there until Caltrans and State Parks personnel determine it is prudent to do so.

Comment DPR-6

Pages 18 and 52... I think the recommendation should state “Use of locally collected seed consisting of species that are representative of the native plant community surrounding the effected area.”

Response

The requested revisions have been incorporated into the revised Initial Study.

Comment DPR-7

Also this recommendation should be required – no exceptions. Words like ‘whenever possible’ (page 18 and 52) and ‘to the extent possible’ (page 52) opens the door for exceptions and lame excuses, allowing the use of exotic or non-local native seed. The collection of native seed or cuttings from the local flora for the revegetation of disposal sites should be a strict requirement...”

Response

For the re-vegetation phase of each site, Caltrans will look at each site-specific location and determine the appropriate seed mix. As an example of what can be expected, if the project impacts an intact stand of coastal sage scrub, and Caltrans is trying to re-establish the coastal sage scrub habitat, then the use of locally collected native coastal scrub species would be appropriate. However, if the site is a highly disturbed, geologically active area that does not support native habitat, and the goal is to control erosion, then being held to the requirement of locally collected native seed is not appropriate. In this case, the only requirement should be to provide assurance that seed from invasive plant species will not be used. Caltrans is committed to the use of locally collected native species, however, in the event they are not available in sufficient quantity to protect disturbed soils, non-local seed sources for locally occurring native plants may be utilized. Non-native plant materials will only be used if determined appropriate by Caltrans in consultation with the property owner and appropriate regulatory agencies.

Comment DPR-8

Pages 18 and 53. Along with maintaining seedlings for a period of 3 years, exotic invaders should be eradicated on an annual basis for at least three years following seeding/planting. During a 3-year maintenance period, brief annual reports should be prepared for each treatment site, documenting progress on achieving the objectives of the revegetation effort. During annual inspections, a qualified individual should assess such elements as 1) plant composition, density and percent cover; 2) the condition of the plants... 3) signs of damage... 4) status of exotic vegetation; and, 5) status of species of special concern. When deficiencies are identified, appropriate remedial measures should be described and carried out prior to the next annual monitoring inspection. This information should be included in your report as part of the description of the revegetation program.

Response

The requested revisions have been incorporated into the revised Initial Study.

Comment DPR-9

...the individuals involved in preparing the specifications for landform restoration and revegetation at the disposal sites should monitor implementation more closely.

Response

During storm damage repair, Caltrans will have a full-time environmental monitor on the Big Sur Coast.

Comment CDFG-1

Based on the information provided in the initial study, Caltrans will need to obtain streambed alteration permits pursuant to Section 1601 of the Fish and Game Code at five disposal sites... The CEQA document must include mitigation measures to offset any potential impacts to streams and associated riparian habitat, which cannot be avoided. Several potential steelhead streams could be affected. Measures should be incorporated into the project to prevent fine sediments from entering these streams.

Response

Caltrans will submit an application for a California Department of Fish and Game 1601 Streambed Alteration Permit for all activities proposed on all “waters of department interest” as described under Title 14, Section 720, of the Fish and Game Code. Mitigation measures designed to offset potential impacts will be part of Caltrans CEQA review. Caltrans “best management practices”, which include procedures for the containment of fine sediments, are implemented on all projects.

Comment MONCO-1

I assume the initial study is being prepared for a Coastal Development Permit that pre-designates disposal sites during emergencies.

Response

The initial study is being prepared in advance of a Coastal Development Permit application. CEQA allows a Responsible Agency, such as Monterey County for the Coastal Development Permit, to adopt the CEQA document prepared by the lead agency.

Comment MONCO-2

Section I.G.3 (Declared Emergency)... Although in the past, emergency work has been granted with a phone call, normally a follow-up emergency permit is required. This should be noted in this section of the initial study.

Response

Comment acknowledged.

Comment MONCO-3

Section II.A.2.b (Maintenance)... indicates that the proposed project assumes continuation of existing practices for temporary stockpile areas along roadways turnouts. Use of turnouts could affect visitor vehicular, pedestrian, or visual access to the coast, especially if these grading spoils are to remain in place during the peak visitor season. In addition, additional runoff from spoil site could potentially impact tide pools. These issues should be analyzed in the initial study.

Response

In terms of possible environmental impacts, turnouts are excellent for temporary storage because the sites are already disturbed. The existing practice is to only use turnouts during and immediately following storm events, which is usually at a “low period” for recreational use on Hwy 1. Caltrans will make every effort to restore all turnouts within 3-6 months of the event requiring their use.

In most cases, the temporary stockpile reduces the potential for secondary impacts by removing material from active landslide areas.

Comment MONCO-4

Willow Springs: What road improvements are proposed at this site? Will additional road grading or widening be required? Will the road be visible from highway 1? Policy 3.2.3.A.4 states that new roads, grading or excavations will not be allowed to damage or intrude upon the critical viewshed. The critical viewshed is defined as everything within sight of Highway 1 and major public viewing areas including turnouts and beaches.

Response

No new access roads are proposed for the site. The dirt road from the Caltrans Maintenance yard to the site (approximately 200 meters) will be widened 1 - 2 meters and have an all weather surface placed. The roadway grading will not have any additional visual impact when viewed from Highway 1.

Comment MONCO-5

Willow Springs: Will fill material be placed on slopes of thirty percent or greater? If so, a Coastal Development Permit is required to allow for development on slopes greater than thirty percent. The Coastal Development Permit can only be granted when no alternative areas exist, or the development better achieves the resource protection objectives and policies of the Big Sur Land Use Plan.

Response

A small portion of the site is on slopes of thirty percent or greater. No alternatives exist that meet the goals of the project in this area. As a federally owned (USFS) site, Coastal Development permitting will be coordinated through the California Coastal Commission.

Comment MONCO-6

Willow Springs: This area is shown on the Big Sur Coast Land Use Plan as containing or located within environmentally sensitive habitat (ESH)... Coastal regulations state: "Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." Section 20.145.040.B of the Coastal Implementation Plan states that "grading and filling shall be prohibited in ESH if it cannot be determined that the development impacts cannot be reduced to a level which assures the long-term maintenance of the habitat."

Response

The project disposal activities at Willow Springs will impact a total area of 1.7 acres. Included is an estimated 1.3 acres of previously undisturbed, high quality Central Coast Scrub on the hillsides, with the remaining 0.4 acres on the lower portion of the site showing previous soil disturbance and has been invaded by ruderal vegetation. The 1.7 acres will be temporarily impacted during the construction phase of the project. When complete, the entire area will be re-vegetated with a seed mix containing seacliff buckwheat and other native species. The site will be monitored and maintained for three years to assure a successful re-vegetation effort.

Section 20.145.040.B of the Coastal Implementation Plan further defines the "...level which assures the long-term maintenance of the habitat" as, "...to an insignificant level." The mitigation measures identified above will reduce impacts to the Environmentally Sensitive Habitat to a level of insignificance.

Comment MONCO-7

Willow Springs: Section 20.145.040.C.1.g of the Coastal Implementation Plan states that "Development and land use activities in areas of natural grassland shall not be permitted to adversely impact the long-term maintenance of the habitat. The allowable uses in natural grasslands include managed grazing, low-intensity recreational, and residential uses." If possible, please provide evidence addressing both sections and that the proposed activities and condition/mitigations will assure long term maintenance of the natural grasslands and coastal scrub habitat.

Response

Please refer to Response to Comment MONCO-6. The proposed disposal site consists of a mix of Central Coast Scrub and ruderal vegetation. There is no natural grassland on the site. Maintenance of the coastal scrub habitat will be assured by the proposed mitigation to re-vegetate the site with a native seed mix and monitoring the site for a period of three years.

Comment MONCO-8

Tree Bones: The initial study indicates that a .65-acre seasonal pond is proposed as a disposal area. Will filling the seasonal pond require the removal of riparian habitat? Riparian habitat is considered ESH and subject to the regulations as stated in the previous paragraph [See comment MONCO-6]. In addition, Section 20.145.040.C.1.c of the Coastal Implementation Plan states, “development and land uses shall not adversely impact the long-term maintenance of the habitat nor diminish the surface flow to a level that causes loss of the riparian habitat or wildlife habitat.” Will the storm water be diverted to elsewhere on the site? If so, where? What impacts will occur from the diversion?

Response

There is no riparian habitat present, but there is emergent wetland and wildlife habitat. The proposed disposal activities at this site have been modified to exclude the wetland area at the bottom of the depression. No storm water diversion is proposed on the site.

Comment MONCO-9

Tree Bones: The initial study indicates that the proposal for this site includes re-establishing a secondary access road to the south... Please provide evidence that the proposed road is not in the critical viewshed.”

Response

Reestablishing the secondary access road is no longer part of the Tree Bones project description.

Comment MONCO-10

1983 Extension: The proposal... is subject to the regulations stated above for the Willow Springs Maintenance Area... Road Improvements within the critical viewshed shall not be allowed, pursuant to the policies of the Big Sur Land Use Plan, as described similarly under the Willow Springs Area above [MONCO-4].

Response

While the comments reflect the Big Sur Coast Land Use Plan (LUP) policy, the LUP also anticipates the need for certain maintenance and improvement activities to maintain Highway 1.

Exceptions to the Viewshed policy are described in LUP section 3.2.5.C.1, **Exceptions to the Key Policy – Highway 1 Facilities**, which states: “Road capacity, safety, and aesthetic improvement shall be allowed, as set forth below, provided they are consistent with Section 4.1.1, 4.1.2, and 4.1.3 of this plan.”

In addition, the Key Policy (sec. 4.1.1) that leads off the Highway 1 chapter states: “...The County’s objective is to maintain and enhance the highway... and to protect its primary function as a recreational route.” The following paragraph (sec. 4.1.2.1) goes on to make clear that the intent is not just to maintain “service capacity and safety” but to improve it. This is relevant because the Highway Facilities exception (3.2.5.C.1) allows “Road capacity, safety and aesthetic improvements” in the critical viewshed, provided they are consistent with sec. 4.1.1, 4.1.2, and 4.1.3 of the LUP.

The essence of this project is a program to anticipate future storm damage events, designate disposal sites that represent the least environmentally-damaging feasible alternatives, with the goal to shorten by weeks or months the highway re-opening process. As such, the project is consistent with the objectives of the LUP.

Comment MONCO-11

Point Sur Naval Facility: Proposed berming could potentially impact views from Highway 1 to the Ocean. Section 20.145.030.A.1 of the Coastal Implementation Plan states that “ocean views from Highway 1 shall not be obscured by artificial berming, mounding, or landscaping.” Please provide evidence how this parcel will not conflict with this policy.

Response

State Parks will be responsible for approving a project for this site and acquiring the necessary permits and complying with the applicable regulations at the Pt. Sur Naval Facility. If designed properly, the proposed berms could be constructed without obscuring views of the ocean from Highway 1.

Comment MONCO-12

Garrapata #6: Will fill materials deposited on the west side of the highway effect tidal pools?

Response

Erosion control methods and restoration plantings will prevent fill materials deposited on the west side of Highway 1 from entering the ocean and affecting tide pools.

Comment MONCO-13

Monterey Maintenance Area: All of the aforementioned sites [Gurries, Garrapata #1, #3, #5, and #6] require the removal of ESH... Any permit application that proposes removal of ESH generally receives a recommendation of denial from staff unless evidence can be provided that no other alternative exists.

Response

Any potential impacts to environmentally sensitive habitats at the Gurries and Garrapata sites will require resource agency and Monterey County approval. The Garrapata sites were proposed by the California State Parks Department as a means to provide a coastal bluff trail for the public.

The proposed project is composed of the seven sites with the fewest environmental impacts, culled from the originally suggested list of 49 disposal sites(see Table 4).

Comment MONCO-14

Significance Checklist: The Hydrology and Water Quality section indicates that the 1983 Extension, Gurries, and Garrapata (sites #1, 3, & 6) proposals would require changing the flow pattern from surface to subsurface. Has diverting the drainage around the proposed fill area been analyzed as a possible mitigation to minimize the impacts on riparian habitat, rather than changing the flow pattern from surface to subsurface?

Response

The 1983 Extension, Gurries, Garrapata #1 and Garrapata #3 sites all will fill an eroded drainage area. There are design considerations that could provide surface water methods of accommodating runoff at the 1983 Extension and Gurries sites. The Garrapata #1 and Garrapata #3 sites could have a different culvert alignment that would prevent having a pipe under a deep fill, but both sites would still completely fill the existing eroded area shown in this document. The Garrapata #6 site has no proposal to change flow patterns.

Comment MONCO-15

The ‘environmental checklist’ biological section does not include any discussion or mitigation for the Gurries site.”

Response

Discussion of the Gurries site has been added to the ‘environmental checklist’ biological section.

Comment MONCO-16

Significance Checklist: Mitigation measures BIO 2, 5, 9, and 10 should include a success criteria.

Response

**Mitigation measures BIO-9 and BIO-10 will be revised to include the following:
“The goal of the re-vegetation/restoration program is 75% minimum coverage on applicable sites by the end of the 3-year period.”**

Comment MONCO-17

Significance Checklist: Mitigation measure BIO 9: A biologist should determine if plants or seeds are appropriate for the specific site. Big Sur regulations require that only local native plant species be utilized.

Response

Comment acknowledged. Please refer to Responses to Comments DPR-6 and DPR-7, above.

Comment MONCO-18

Significance Checklist: Mitigation measure BIO 10 states that restoration of wetlands and riparian habitat should occur within the affected drainages or at nearby offsite locations yet to be determined. To determine if the mitigation is feasible, proposed sties should be identified in the initial study.

Response

**Mitigation measure BIO-10 has been revised to read:
“BIO-10: Every effort will be made for restoration of wetland and riparian habitat to occur on-site. However, it may be most appropriate to enhance the affected drainage up or downstream of the impacted location. Replacement ratios will be at a rate of 3:1, with three units replaced for every one impacted. Specific locations will be determined on a case-by-case basis in consultation with the property owner, the Army Corps of Engineers, Regional Water Quality Control Board, CA Coastal Commission, CA Department of Fish and Game and the County of Monterey during the permit process. Monitoring and maintenance of restored wetland and riparian habitat will be conducted for a minimum of three years. The goal of the restoration**

program is 75% minimum coverage on applicable sites by the end of the 3-year period.”

Comment MONCO-19

Significance Checklist: *Although the initial study includes some discussion of potential impacts associated with truck traffic, it does not discuss truck traffic impacts during peak visitor season and possible mitigation.*

Response

The proposed project activity will occur during the time of year when landslides occur as a result of seasonal rainfall. The peak visitor season is the summer. Therefore, impacts during peak visitor season are not expected or anticipated and mitigation is not necessary.

Comment RCMP-1

We request that you prepare an EIR because of the individual and cumulative significant environmental impacts. This proposal requires an EIR both legally and with any matter of common sense.

Response

Under CEQA, it is the lead agency’s responsibility to determine whether an Environmental Impact Report (EIR) or a Negative Declaration is appropriate. That decision must be made based on technical studies and public input. The Initial Study is a tool identified in CEQA to assist the lead agency in determining the level of documentation necessary.

Comment RCMP-2

The removal of several hundred thousand cubic yards of soil and rock is in itself a significant environmental impact triggering an EIR. The Neg. Dec never seems to even attempt to estimate the quantity or rate of dirt that would be required, making the sizing of areas completely subjective... Please provide us with an adequate project description including the quantification of the problem. Include a margin of error.”

Response

No estimates of disposal quantities were made in the IS because it is currently unknown how much disposal capacity will be required for naturally-occurring landslides in the future. Severe storm events and associated landslides are not precisely predictable, but experience has shown that they will occur. Landslide-related damage to the highway has varied over the past few years but remained somewhat consistent with the severity of the winter.

Repair strategies are continuously evaluated to determine the least impacting alternative which restores traffic on Highway 1 most efficiently.

Comment RCMP-3

The potential loss of wetlands is not merely a significant environmental impact - it is prohibited by the Coastal Act because it is ESHA...

Response

The proposed mitigation to address wetland area impacts is to replace them at a ratio of 3:1. Thus, there will be a net increase of wetland area by three-fold at project conclusion.

Comment RCMP-4

Dumping or placing landslide debris at any coastal location other than one which there is no drainage into the ocean ignores the long term certainty that the debris will erode into the ocean. This impact was entirely missed and should be analyzed."

Response

Looking at the Big Sur coast from a geological perspective, the disposal sites and all other natural landforms are gradually moving to the sea. Caltrans will try to minimize erosion at the disposal sites by using well-established best management practices.

Comment RCMP-5

The debris which erodes into the ocean will directly harm the most sensitive part of the land and the sea – the ecotone. Ecotones have far more biodiversity than areas away from an edge. This needs to be recognized and carefully analyzed. (i.e. how could this harm the food sources for the listed Southern Sea Otter?)

Response

Caltrans will try to minimize erosion at the disposal sites by using well-established best management practices.

Comment RCMP-6

Gathering and trucking the debris will cause significant aesthetic impacts including noise, air pollution (especially from diesel trucks), visual (trucks are not what I want to view in Big Sur) and traffic congestion. None of these potentially significant environmental impacts were sufficiently analyzed.

Response

In summary, impacts related to heavy-duty trucks and equipment associated with hauling to the disposal sites will be short-term and cease at the end of the construction period. These impacts will not exceed thresholds of significance and are therefore determined to be less than significant impacts.

Construction noise impacts will vary by site and proximity of sensitive receptors to the project site. Sensitive receptors are present at Willow Springs (residents) and at the Garrapata sites (recreational visitors). At Willow Springs, access is through the Caltrans Maintenance yard, where several occupied residences would be affected by the noise of a disposal operation. Within the State Park, since disposal operations would be periodic and short-term they would not substantially impact park users.

Construction air pollution impacts will vary directly by the length of haul. Generally, the least impacts will be in situations where the material could be disposed of on-site, while the greatest impacts will be associated with disposal sites at long distances from landslide sites. The greatest potential air quality impacts will result with the No-Project alternative, which could result in material being hauled to landfills outside of the project area.

Visual impacts are not considered significant because they are short-term. Finally, the proposed disposal operation will occur outside of the peak summer traffic season, therefore impacts related to traffic congestion are not expected to be significant. The No-Project alternative would hold potentially greater traffic impacts, as trucks would be forced to travel longer distances, and longer time required to re-open a closed road.

Comment RCMP-7

Placing the dirt will cause long term particulate air pollution from placing unprotected dirt berms in areas directly blown by strong coastal winds.

Response

All ground areas disturbed by disposal activities including haul roads, excavation areas, and temporary stockpiles will be treated with erosion control and revegetated. Caltrans standard dust control measures will also be implemented on site.

Comment RCMP-8

Placing the dirt will cause water pollution when placed directly in streams (as at Point Sur).

Response

Disposal activities involving drainages include the following:

- **1983 Extension**
- **Gurries**
- **Garrapata (Sites # 1, 3, & 6)**

Using these areas for disposal would involve alteration by changing the pattern from surface to subsurface flow (i.e. transported via culvert beneath an earthen fill).

Conveying the water through a culvert allows the flow to continue along the same course and fall rate (elevation). Doing this, however, results in a permanent loss of the surface drainageway and any attendant riparian features. Dirt will not be placed directly in streams.

Comment RCMP-9

Placing the dirt will block views causing aesthetic losses and aesthetic harm as dirt berms between highway 1 and the ocean would not be attractive (especially at Point Sur and Garrapata).

Response

Visual impacts from disposal activities in the Highway 1 viewshed are primarily associated with alterations of landform and exposure of bare ground. The latter is considered a temporary impact with successful re-vegetation and can also successfully mitigate for the change in landform. Therefore, suitability for re-vegetation becomes the primary criterion for evaluating the degree of visual impacts at each disposal site.

At sites such as those at Garrapata State Park, severe erosion has degraded the site and hence the view. The disposal and subsequent re-vegetation may result in an overall improved appearance. Similarly, sites invaded with exotic weed species, could be improved with the disposal through burying weeds and planting native plants in their place.

At the Pt. Sur Naval Facility, the site is proposed to provide a visual screen of existing buildings. However, placing a large mound of fill material on a naturally level terrace will look artificial, as it will not easily blend into the surrounding landform (marine terrace). This site has a high degree of visibility. Screening the buildings from view could also be achieved by planting trees and shrubs. Caltrans will recommend to State Parks to construct fill with flatter slopes, especially on the ends of berms, by creating an undulating finished profile and by slope rounding, and to re-vegetate primarily with grasses.

Comment RCMP-10

Because of the probable significant environmental impacts we insist (as does CEQA) you find and evaluate offsite alternatives. We request you find locations out of the Coastal Zone which are physically isolated from watercourses, and also analyze using the landfills in Marina, Johnson Canyon, Crazy Horse, etc.

Response

Transporting material to existing landfills or large approved developments (those with grading plans allowing import of fill) may provide options, however, the associated costs, longer time to re-opening the highway, and uncertain capacity make them less desirable. Furthermore, these opportunities are most likely to be found in the Monterey Peninsula area at considerable distances from coastal landslides. Since hauling costs increase with distance from the source, these sites would be expensive and cause considerable traffic disruption.

Comment CW-1

Though it is necessary to create some interim use disposal sites, it is premature to establish permanent land-based disposal as an answer to disposal needs without further study.

Response

Comment acknowledged. The CHMP will provide additional information for long-term disposal needs for the Big Sur coast.

Comment CW-2

The Marine Sanctuary will need studies to guide their decision about dirt disposal along the coast. It would be appropriate to facilitate a combined study, which would consider ocean disposal that would approximate the natural deposition patterns historically established by the geomorphology of the coast. This sort of study, done by a well regarded third party, would give a basis for meaningful and informed discussions to begin.

Response

Comment acknowledged. The effort the commentator describes will be undertaken as an element of the CHMP.

Comment CW-3

Another Highway development which has not had adequate study or discussion, and yet is proceeding ahead, is the “draping” of rock fall sections of the coast. Since the LCP’s highest priority is retaining the coast in its natural and pristine state, to create such

installations without reference to the Caltrans safety index, County review of critical viewshed impacts, much less steering committee discussions, is inappropriate.

Response

Comment acknowledged. Rock fall protective measures such as drapery are not part of the proposed project.

Comment CW-4

The three proposed berms at Point Sur Naval Facility (P.M. 53.8), covering 3.1 acres, will have significant impacts on the critical view shed of the Big Sur coast which cannot be mitigated. The primary recreation of the coast, as defined by the LCP, is scenic. The LCP states that there shall be no development in the scenic view shed. The proposed berms would create a screen for future development. Screening for development in the critical view shed is contrary to the policies of the LCP. Therefore these berms will prejudice in favor of future development in the critical viewshed. The creation of these berms constitutes development in the critical viewshed, and in this highly scenic area, on the west side of Highway 1, must be considered an unmitigable, significant impact.

Response

Comments acknowledged. State Parks will be the lead agency and will be responsible for approving any project at Point Sur Naval Facility.

Comment Norman-1

...the mapping of the Gurries site, which should be shown south of Garrapata Creek and north of Kasler Point.

Response

Comment acknowledged.

Comment Norman-2

...the spelling of the Tree Bones site; it's Bones, plural.

Response

Comment acknowledged. The spelling has been corrected throughout the document.

Comment Norman-3

Tree Bones: ...the Initial Study doesn't refer to other likely sensitive resources which the site could support. These resources include La Graciosa thistle... and... the California

red-legged frog... No negative declaration is made for these taxa, and on-site protocol surveying for them should be conducted (or described in the document, if such work has been done).

Response

The Tree Bones site has been surveyed the past two years (summer of 1999 and spring and summer of 2000). Neither the California red-legged frog nor the La Graciosa thistle have been found at this site. Please refer to Chapter IV, Section B for a discussion of sensitive species.

Comment Norman-4

[Tree Bones:] The Initial Study does not include conferral with the US Fish and Wildlife (USFWS), which regards the disturbance of a single seacliff buckwheat plant to be the equivalent of the taking of Smith's blue butterfly. The Tree Bones site is located on Los Padres National Forest, and USFWS has jurisdiction.

Response

Caltrans will consult with the US Fish and Wildlife Service prior to any activity that will disturb seacliff buckwheat, host plant of the Federally endangered Smith's blue butterfly. The US Forest Service will be the lead Federal agency at the Tree Bones site.

Comment Norman-5

I question the overall adequacy of the surveys done for sensitive plant and animal taxa... I believe that a more careful search needs to be conducted. There are certainly many more places which are the environmental equivalents of the Willow Springs and Pt. Sur sites... I recommend adequate biotic surveying before a Negative Declaration can be made for the initial study."

Response

The proposed disposal sites were surveyed for all special status plants, wildlife and natural communities known to occur within the primary and surrounding USGS Quads. The list of special-status species was developed using the California Natural Diversity Data Base, information supplied by knowledgeable resource agency personnel, and from Caltrans files. In addition, formal consultation with USFWS is on-going for Willow Springs.

Comment Norman-6

I believe that the use of environmentally-appropriate disposal sites be made only for maintenance and other small-scale needs - not for massive stabilization jobs.

Response

There is an on-going need to be prepared for both small and large scale events. The proposed project does not go far in terms of potential need for future disposal capacity. In 1998 alone, over 1,000,000 cubic yards of material was moved in response to storm damage on Highway 1 in the vicinity of Big Sur. The proposed project has a potential capacity of less than 300,000 yards. Please refer to Chapter I, Section G. for additional information regarding the challenges of responding to storm damage events.

Comment Woyt-1

[Tree Bones] There is a vernal pool site... this study does not consider the specific geological, hydrological, biological basis for why this phenomena occurs at this site.

Response

The Tree Bones location contains a seasonal wetland that lacks the assemblage of plants characteristic of a vernal pool. Caltrans recognizes that the site includes a seasonal wetland and wildlife habitat. The current proposal is for material to be deposited above (outside of) the wetland area.

Comment Woyt-2

The Pt. Sur and Garrapata sites are characterized by their cooperative component with future development projects of the State Park system. These projects are not in permit process... have deep impacts and implications for the future of this coast.

Response

Please note that State Parks would be the lead agency for approving any activity at these locations.

Comment Woyt-3

Imagine that the management plan has been completed... and we know the total disposal sites and their capacity... and thus know what percentages these sites represent... and that all disposal alternatives are on the table and feasibility of each has been established... (...including ocean disposal...) ...imagine that in the light of the whole picture that it could be concluded that the best use of the limited coastal sites was for resident crews to use them for standard clean-ups... that use for huge catastrophic events would be wasteful... We do not presently have the data to even ask the right questions. How can a “less than significant impact” verdict be passed on any sites at this point?

Response

The project aims to address the ongoing need for disposal, a need which is a certainty given that Highway 1 lies within an area of high geologic activity. The effects of the proposal primarily show impacts to native habitats, as the current approach considers only upland or terrestrial sites. Through the planning effort with the Coast Highway Management Plan, further evaluation will be made for alternative methods of disposal. Through that effort, alternatives may be identified to reduce the overall cumulative impacts of disposal activities along the coast.

A certainty is that the road will be re-opened and material will be disposed of in some manner. The project is an attempt to plan for the best sites available now instead of dealing with them in an emergency.

Comment Woyt-4

There is nothing in this initial study that compares the cost of use of these sites plus successful revegetation and associated monitoring plus rehabilitation of access roads after heavy truck use with the cost of just taking the material away to start with. The cost/benefit ratios and comparisons are essential to the decision process.

Response

Use of existing landfills and approved developments (with approved grading plans allowing import of fill) remains an alternative still under consideration for the long term. These opportunities are most likely to be found in San Simeon and the Monterey Peninsula. However, the associated high costs of transport, infrastructure and air quality impacts, and uncertain capacity make them less desirable.

Comment Wright-1

Page 29, Site 1. [Garapata #1] Comment that "continuing erosion of bank detracts from the viewshed." This statement may reflect a value judgement as opposed to reality.

Response

It is recognized that scenic values reflect subjective judgement. For assessing visual impacts, Caltrans relies on the Federal Highway Administration's a Visual Impact Assessment (VIA) process. The FHWA Guidelines for preparation of VIAs states the following:

"Visual intactness refers both to the integrity of visual pattern and the extent to which the landscape is free from visually encroaching features. Visual intactness is also dependent on the integrity of visual order in the landscape. Overall intactness may be reduced by the obvious subtraction of visual elements. Unity is the degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern."

The District Landscape Architect has interpreted these guidelines and determined that eroded slopes in the midst of contiguous natural chaparral are a disruptive element that lowers visual intactness and unity.

Comment Wright-2

Page 62, Transportation/ Traffic: Does not adequately address the impacts on the local population that has to commute to town, whether it is school children, workers, or those just needing to go...

Response

The project has the potential to reduce impacts on the local population by allowing for a more rapid response time by providing pre-approved disposal sites in proximity to landslides. The no-project alternative may result in longer time to re-opening while Caltrans deals with emergency response and permitting issues, etc. which could have greater negative impacts on local residents.

Comment Thangaraj-1

I request you prepare an EIR because of the individual and cumulative significant environmental impacts...

Response

The proposed project includes mitigation measures that will avoid or reduce the impacts to a level at which no significant effects will occur. Therefore, an EIR is not required.

Comment Thangaraj-2

My objections are based on the following: 1) Berms...

Response

Berms are not part of the project description. The proposed project assumes continuation of existing practices for temporary stockpile areas. In times of need, stockpiling may take place at suitable areas along the roadway (such as in existing turnouts) until transport to a permanent location can occur. It should be noted that berming is a direct result of inadequate capacity for disposal sites, but also performs other functions, such as drainage and as a barrier to vehicle access where unofficial pullouts are undesirable. Maintenance practices, such as berming, are being addressed as part of the CHMP.

Comment Thangaraj-3

The Coastal Act forbids disruption of any wetlands that are located on the coast of California... There are sites within your Initial proposal that would destroy some of these areas (i.e Garrapata site #6).

Response

Any wetland areas that are impacted will be replaced at a 3:1 ratio on-site. Where on-site mitigation is not possible, appropriate off-site locations in the vicinity of the disposal site will be secured for wetland restoration.

All of the proposed disposal sites are within the Coastal Zone and therefore must be permitted by the California Coastal Commission. Caltrans will not begin any activity within a wetland area without permits from the California Coastal Commission, California Department of Fish and Game, Regional Water Quality Control Board, and the US Army Corps of Engineers.

Comment Thangaraj-4

Instead of the earth being distributed all over Big Sur... I want you to consider having it used for landfills... outside of this area.

Response

Please refer to response to Comment Woyt-4.

Comment Thangaraj-5

...Please also analyze a Landslide Prevention alternative in conjunction with offsite disposal.

Response

Landsliding on the Big Sur coast is a geologic phenomenon of great proportion and an important component of the natural system. It is largely held that preventing landslides is not desirable, practical, or even possible in many cases. The CHMP will evaluate the techniques of repair and maintenance and continue to aim to minimize the quantities of material to be removed from a site to open the road. Caltrans' objectives will be to determine the best ways to manage within the natural system, rather than to change the natural system

Comment Ravich-1

Please avoid dumping dirt near any [Smith's blue] butterfly habitat by at least one hundred meters.

Response

Comment acknowledged. The proposed mitigation measures to protect seacliff buckwheat (Smith's blue butterfly habitat) by establishing Environmentally Sensitive Areas around the plants that will remain off-limits during construction. In addition, seed mix for restoration shall include seacliff buckwheat.

Comment Chappellet-1

Pt. Sur Naval Facility: *"The State of California through the State Parks has promised the community of Big Sur and the larger public that all plans for the property would come before the public in a master plan for comment and review before the county permit process. Adding any material or berms ahead of those procedures would prejudice the outcome of those proceedings and is against our L.C.P. Please omit this site from your plans.*

Response

Comment acknowledged. Please refer to Response to Comment Woyt-2.

Comment Toren-1

Pt. Sur Naval: *The former Naval Station is located in one of the most sensitive and treasured parts of the Big Sur coast... Any suggestion that would involve dumping of material within the critical viewshed would be a violation of the Big Sur Coastal Plan.*

Response

Please refer to the response above (Response to Chappellet-1).

Comment Bloomfield-1

...I am deeply concerned about the proposed plan for a soil dumping site near wetlands in Monterey County... We need to do all that we can to preserve the wetlands we have left. Please, find an alternative to this plan."

Response

Avoidance of wetlands is a primary objective, however, considering the lack of suitable options, some sites under consideration do contain wetlands. Actions will be directed to minimize the overall loss of wetlands, and where impacts do occur, restoration at a ratio of 3:1 will be provided.

Comment Andres-1

Berms are constructed too high. Unless in truck or bus, ocean view is blocked. This should not be so.

Response

Comment acknowledged. Please refer to Response to Comment Thangaraj-2.

Comment Andres-2

Terrible idea to mar clear area in front of Point Sur with new dirt mounds! Please not.

Response

Comment acknowledged. Please refer to Response to Comment Woyt-2.

Comment Andres-3

I think that wherever you are planning to put all that soil it will wash into wetlands, streams and sea.

Response

Comment acknowledged. To the extent that the Big Sur coast is a very active geological area, it is just a matter of time before material finds its way to the sea, however, measures have been incorporated to minimize erosion.

Comment Blum-1

The project description should clarify whether the project is merely the designation of sites or the pre-approval of sites for disposal.

Response

The project description has been revised as follows:

“The proposed project is to designate and approve sites for material disposal of soil and debris...”

Comment Blum-2

Pt. Sur:...After the transfer from the federal government to the DPR and before any development could be constructed, it has been clearly stated by DPR to the BSMAAC and the public that the State... will adopt a Master Plan for the entire facility, and that any project approvals within the facility pursuant to the master plan will be subject to the permit authority of the County of Monterey... This Initial Study project description

suggests that berming could be approved for the Naval Facility under the rubric of this disposal site project prior to overall planning for the Naval Facility.

Response

Please refer to the response to Comment Chappellet-1, above.

Comment Blum-3

Pt. Sur: Moreover, to the extent that approvals for berming occur as a part of this disposal site project, they might be cited as justification to leave in place facilities which otherwise would be in the public viewshed and subject to removal (per the State's representations to the BSMAAC). Such potential consequences need to be identified in the Initial Study as potentially adverse impacts. More specifically, this component of the project could result in a land use and planning impact under Section 4.b) of the Initial Study...

Response

Please refer to the response to Comment Chappellet-1, above.

Comment Blum-4

The Initial Study does not identify, either in the recommended sites or alternative still under consideration, the potential for stockpiling disposal material at two locations on the El Sur Ranch which are presently used as stockpiles for Caltrans disposal materials. The stockpile site at the Little Sur River accommodates 50,000 to 60,000 yards of material, while the stockpile at Dairy Canyon accepts approximately 10,000 yards... we request their inclusion as recommended site in the CEQA project description...

West Moro ditch was a short-listed site proposed for 20,000 cubic yards of material on the El Sur Ranch, but was not recommended. East Moro ditch was also considered. Inasmuch as neither site was rejected, we assume that they both remain alternative sites still under consideration... it appears that other sites were recommended with environmental conditions quite similar to Moro ditch... Consequently, we urge inclusion of the Moro Ditch Sites as recommended sites in the CEQA project description.

Response

The seven sites under consideration in this document were chosen because they appeared to have the best potential for delivery. The seven sites do not fully address the disposal needs of the Big Sur Coast. All identified sites, plus many others yet to be identified will be under consideration in the CHMP, a long-term planning effort for the management of the Big Sur Coast Highway.

Comment Gurries-1

...the Gurries Site would require a separate entrance from Highway 1 from the existing site that is utilized by the soon to be renovated home... I have drawn a black felt line where I feel an unobtrusive driveway could be constructed between the existing trees and brush.

Response

The suggestion is being taken under consideration for design.

Comment Diehl-1

Will there be other opportunities to comment on the plan for disposal sites for the storm damage? How will persons whether or not they are interested parties be kept aware of plans and progress of operations at these disposal sites?

Response

The Coast Highway Management Plan (CHMP), Multi-Agency Meetings, Coastal Development Permits, and 404 Permits all provide opportunity for public input and participation.

Comment Diehl-2

Will there be a clear policy for Caltrans personnel to preserve the current views and turnout spots when they select disposal sites? Will there be a clear policy to keep the piles of disposal material low enough in height and with a naturally contoured appearance so that no more views are lost or compromised?

Response

Please refer to Chapter VI: Discussion of Environmental Evaluation, for a description of the mitigation measures that address visual impacts. (See VIS-1, VIS-2, and VIS-3.)

In addition, Caltrans must obtain a Coastal Development Permit and be consistent with the Local Coastal Plan's Visual Resource Policies.

Comment Diehl-3

Will there be a guideline to make the final contour of future disposal sites blend more naturally with the original slope contours? In addition, can we work towards filling in pull-off areas that do not provide a safe way for people to re-enter the highway?

Response

Please refer to previous response. Every effort will be made to blend the fill slopes into the existing topography. Techniques such as transitioning slowly from the new fill to the existing topography and "rounding" the transition from slope to top will be used to provide a more natural appearance.

Filling in pull-off areas is outside the scope of this document and included in the discussions regarding development of the CHMP.

Comment Diehl-4

Will there be a study to determine if there will be adverse effects to the local native plants and animals (both on land and in the water) if debris, dirt, and rocks from one geological zone with distinctly different pH is placed in another geological zone? What about the effect on the water that passes through rock of a new type?

Response

One of the primary factors in determining candidate locations for material disposal sites was in the proximity of material sources(i.e. slides). This factor is important from both a cost effectiveness position and a need to have geology and groundwater chemistry homogeneous. Gurries for example would be used for material generated from the Little Sur River to Carmel Highlands.

Comment Diehl-5

Gurries: We are concerned that long-term operations will cause disruption to local residents due to noise, traffic, and high levels of activity...What types of operation will occur at that site? Will there be equipment storage, ongoing construction or a constant or frequent personnel presence here?

Response

The majority of the time this site would be unoccupied and no structures or personnel would be at the site.

However, immediately after an event that requires the use of this site, a contractor will be mobilized to prepare the site for placing fill. A temporary job-trailer may be placed on-site by the contractor for the duration of this work A bulldozer will clear vegetation and prepare an adequate area for fill to be placed. One or more bulldozers will be used for the duration of the need for this site, with up to 300 ten-wheel diesel dump trucks delivering material during 10 - 12 hour working days.

Once the highway is reopened and the need for maximizing the amount of material placed there passes, fewer dump trucks per day would be required and working

hours would be scaled back to normal. At that time, the contractor would demobilize and permanent erosion control and re-vegetation work would start.

The construction time frame depends on the volume of material to be disposed of. However, the operation will be short-term and cease at the end of the construction period. No long-term operations are planned for the site.

Comment Diehl-6

Gurries: “Has a study looked at the environmental damage that could be caused if a large amount of disposal material washes either into Abalone Cove or across the highway?”

Response

Geological and geotechnical engineering reports will be prepared for all the proposed disposal sites. These reports will provide the necessary information to construct the fill areas in such a way as to prevent a wash out as described above. Erosion will be controlled by well-established best management practices, which includes re-vegetation of the sites.

Comment Diehl-7

How can local residents contact the appropriate person to discuss or report activity that seems inconsistent with the final guidelines that will be published with the highway plan?”

Response

Contact Caltrans District 5 at (805) 549-3111.

Comment Diehl-8

If we provide 2’ of appropriate topsoil over non-site-appropriate debris (as for example local granitic soil over debris from Hurricane Point at the Gurries’ Site), doesn’t this set-up mean that there can never be any very large native plants that become established there?”

Response

Terrain within most of the disposal sites (and much of the rugged Big Sur coastline) can be characterized as steep and rocky. Local native vegetation is adapted to growing in steep rocky conditions with shallow soils. Many of the coastal scrub species, such as the seacliff buckwheat, have the ability to utilize and thrive in disturbed sites. It is Caltrans position that two feet of topsoil will provide adequate conditions for re-establishing native vegetation.

All sites listed in Table 4 remain under consideration for longer-term disposal. The nine sites proposed in the Initial Study were perceived to be the least environmentally impacting and had the greatest potential for approval.

APPENDIX A: COMMENT LETTERS RECEIVED